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Agricultural.

Truck Farming.

Middlesex County has been called the garden of Boston, and it well deserves the name. A large share of all the land under cultivation at all is devoted to garden crops, and much of it is made to produce two or three crops a year. The number of acres under glass is known to be very large, and one can get some idea of the glass houses by taking a ride on some of the many trolley lines that form a net work through the county in all directions. Arlington, Belmont and a part of Cambridge abound in these, and the crops grown there are largely such as enable the cultivator to get a large income from a small tract. What is known as greens, lettuce, spinach, parsley, early beets and carrots are favorite crops in these sections, both under glass in the winter and out of doors in the summer, not only because they sell readily, but because they grow so quickly that the ground is soon free for another crop. They may be found in our markets every month, and nearly every week in the year. Tomatoes and cucumbers under glass in the winter are also largely grown, and some grow the squash. Early summer squash, the Bush scallop, white and yellow, and the summer Crookneck usually yield well, and they have sold at good prices this season.

Concord is one of our chief sources for the asparagus and for rhubarb, though Lexington grows some of each of these. The green corn largely comes from farther out, Bedford and Wilmington, where land is cheaper and the tax rate is not as high. They also grow some winter squash, and some have large fields of tomatoes and celery. String beans, shell beans and Lima beans are grown in nearly all the towns about Boston. Peas are not as plenty as they were before the peavine louse caused so much damage, but we expect to see them popular again.

But these are not the only towns. There are others south of the city. Framingham, Natick and Weston contribute no small share toward feeding the people of the city, while from both the South Shore and from the North Shore we find loads. The towns along the North Shore have good markets in Lynn, Lowell, Lawrence and other places, and are not seen so often in Boston, unless they have a large onion crop. The South Shore market wagons bring in corn, potatoes, cabbage and squash about as frequently as anything. These crops grow well on their light sandy soil, and the kelp, rock-weed and other sea manures which they gather on the beach in winter seems to be as well adapted to them as the stable manure from the city, which is the chief dependence of the towns which lie nearer to Boston.

And the amount which is drawn out of the city each week is certainly almost beyond calculation. Ride over the trolley lines in what direction you will, and at almost any time of day or night one may see teams of two or four horses coming in to Boston with their great wagons to be loaded, or taking out loads about as large as they can pile on or as the horses can draw. This manure is taken home and put in piles to rot down before it is put on the fields or in the greenhouses. Much of it is assisted in being fitted for the soil by being forked over more than once.

But the manure is by no means the greatest expense. Many of the gardeners have contracts with the stables and pay but a nominal sum, on condition that they keep the cellars cleaned out regularly. Other fertilizers are used in addition to the stable manure, using them to force certain crops along, or to add certain elements that they think are not in the stable manure in sufficient amounts. Thus they more frequently buy the chemicals than the manufactured fertilizers.

But the labor is an important item of expense, though they employ much of what would be called unskilled labor in the rough work, and women or girls in putting up the produce for market. But there must be skilled help with each gang, and a good foreman gets good pay, as also do the men who are sent to market with the goods when the owner does not care to go himself.

The teams expenses are heavy. There must be the heavy team horses, and the heavy manure wagon, with the better looking and showy wagons in which the produce is brought, and which stand on our market streets so much of the day. There are fine looking horses and harness to go with them, and yet with all these heavy expenses our truck farmers or market gardeners are a fairly prosperous class.

Now aren't we glad that Indian summer didn't go out with the Indian.

Live Stock Notes.

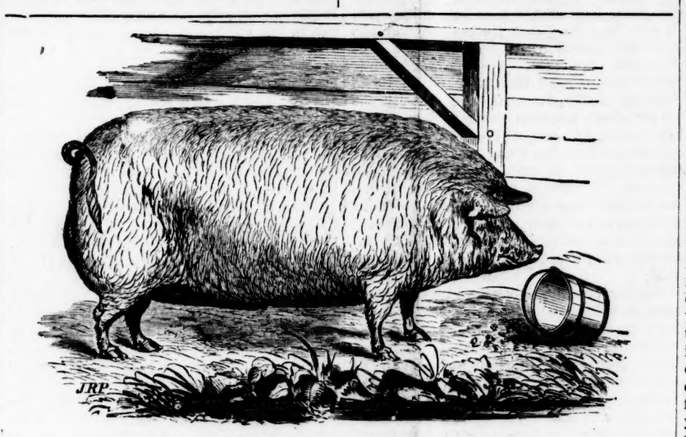
We knew a man who used to raise a great many pigs, that is, for a farmer in New England. His pens were perhaps about ten or twelve feet square, and he usually had three in a pen excepting when he had sows to farrow soon or that had suckling pigs. Usually in such case each one was given the whole pen, although in some cases two would agree well together. But not long before his death he said he intended to so enlarge his buildings, or decrease his number of hogs, that never more than two should be in the same pen. We think he had the correct idea. Two fattening hogs may do better at the same trough than one, as some claim that each will try to get the larger share of the food from the others, and thus eat more, but we never saw much proof of it, though we have tried it, and also the plan which we saw advocated years ago, of letting the younger pigs in with the older ones after the latter had apparently eaten all they wanted, with the idea that their "hoggish" disposition would send them back to the trough again. But we never saw any good results from it, and we would not now expect to, for if the pig or another animal is induced to eat more than it has a good appetite for, it is apt to eat more than it can digest well, and that is more likely to cause a shrinkage than a gain in flesh. We believe in a variety of food for the hog as for all other animals or poultry, and in as much green food as they want in summer and raw roots in winter, but many of those who keep hogs in New England do not give them any pasturage at all, but cut up a little green fodder for them in summer and give them roots or clover hay, perhaps both, in winter, and they succeed in raising good thrifty pigs, and they or those they sell them to can make good pork from them at from six to eight months old, and pork that will yield a profit to the grower, almost without regard to the price of corn. We made pork at a profit above cost of food given, when corn cost us $2.50 a bag, and we could do it if corn cost twice that amount, though we might not if we sold half fattened, or sold at once as soon as killed. A sudden rise in grain is always likely to reduce rather than increase the price of meats, as so many send half-finished stock to market, glutting the markets with just what they do not want. But after that first rush is over the the price of prime meat is bound to advance, and we doubt if the meat trusts could keep it down if they desired to do so, and no one has accused them of such an intention.

In a recent number of the Shepherd's Bulletin a breeder boasts that he recently sold twenty-five ewes, and his flocks were so even in quality that the buyer agreed to take the first twenty-five that went through the gate. That certainly speaks well for the uniformity of the flock, but it also shows some shrewdness on the part of the buyer. Those that go ahead are those that are the natural leaders of the flock, and likely to be the strongest and most vigorous. The custom of having a bell wether to lead the flock is so seldom followed now that it devolves on the strongest ewes to take the leadership when there is no ram with the flock, and even if there were it is probable that the best ewes would be in the advance next to him, unless at a season when they were heavy with lamb. This is true in regard to nearly all stock. When you see them self-assertive, and even aggressive, you will find them hearty eaters, strong, healthy, and with good digestive powers.

That the feed has its effects upon the beef is well illustrated by the communication of an Illinois feeder to the Indiana Farmer. He said that when at the Chicago Stock Yards with a load of steers he met another man who had also a carload that looked as fine as his. They both sold to packers the same morning. The writer sold his at $8 per hundredweight, and the other received only $6.25. Both lots were grade Shorthorns, a little more than two years old. He had fed his on corn, stover, clover hay, cowpea hay and wheat bran. The other had fed only corn and stover. The expert buyer said the other man's cattle were very good, but they were deficient in the thick loin beef which his had, which made his beef more valuable. In this case it was not "half in the breed and half in the feed," but all in the feed. The cowpea hay, clover hay and wheat bran were richer in protein than corn and stover.

The high prices of corn last winter is now showing one of the results that we then expected and mentioned in this paper. Many who had not corn, sold off their breeding stock in the sheep yards, hog yards and poultry pens, and now, with a prospect of lower-priced corn they find it difficult to purchase the stock to use up the corn grown in the corn belt. The cattle feeders are not as badly off as a rule, because they had been relying upon buying their animals to feed from other sections, and as they did not buy there are more for sale this fall. They may not fatten as easily or as cheaply as they would have done last year, and they may not sell at as high prices as did those that were fattened on the high-priced grain, but for that they can only blame their own lack of courage. Now a new danger confronts them, and many will not foresee it in time to avoid it. New corn is selling at prices much below those asked for old corn a year ago, or at the present time. Many will take their chances on the new corn, and a few weeks later will be complaining of hog cholera, though the trouble may be only bowel complaint caused by indigestion. We used to know a farmer who, although not wealthy, would not feed any new corn that was called ripe until January or later after it was harvested, nor would he have any ground. He tried to keep enough through the summer to last until that time, both for family use, where corn-meal johnny cakes and mush were frequently on the table, and for stock feeding. He said that it would be fit to eat when well cooked, before it was fit to feed to the hogs or fattening stock. He did not hesitate to feed the roasting ears in the milk, or the immature nubbins in the stover, but he did fear the ripened but not thoroughly dried grain after the harvest. But when feeding immature ears, or when beginning on new corn, the hogs had plenty of charcoal in the wood ashes to help digestion, and the other stock were given but little at first, to accustom them to it, even after a season in pasture, and preparatory feeds of roots and pumpkins.

The dipping-tank is sufficient for killing ticks on sheep if the dipping is repeated in about ten days, to kill those that have batched out in the meantime, or come back to the sheep from walls and fences of the



CHESTER WHITE PIG.

pen, but it is not enough to kill the scab. Each sheep should be brushed with a stiff brush wherever the scab can be found, to break the scab, that the dip may reach the parasite beneath. It is a dirty, disagreeable job, and it is easier to keep free from it than to destroy it after it has gained a foothold. Allow no strange sheep to mingle with the flock, or to be in the yards or fields unless very sure that it is free from the disease, and allow no one to go among the sheep who has been among those that have it. It may be necessary to give more than one treatment to remove it, and to wash all places where the sheep have rubbed themselves, or even to take out woodwork from the pen and burn it. The purification by fire is as effective as any.

What we have said above about selecting boars for breeding, from the offspring of prolific cows, is equally applicable to the choice of sows, but we place a great deal of reliance on their form, and the number of teats they have, and if a well-formed sow has but five or six pigs in her first litter we would not discard her at first trial, as we have known such ones to increase to nine or ten at the second litter, and a dozen or more the next time. Often a sow bred young has but a small litter, yet we would seldom let one get past eight months old before breeding her. If left until a year old, she will have the tendency to lay on fat, and probably never will prove a good breeder. We have bred them much younger than eight months, and they were as good breeding sows as we ever owned, but we like the boar a little older for such sows, as we think they get stronger pigs.

The American Engineer in Europe.

SOME OBSERVATIONS OF ENGLISH METHODS.

The Iron Age quotes W. G. Sloan, an assistant engineer engaged in erecting the Westinghouse plant near Manchester, England, on his experience there in part as follows:

It was evident at a glance that a complete reorganization was necessary, in the making of which we naturally met with considerable opposition. We found the work in charge, under an architect, of a clerk of works, who had a small office in one part of the grounds. This man had perhaps a dozen assistants, each having his little office in some part of the grounds, each seemingly as far as possible from the others. The first thing done was to build an office large enough to accommodate all the necessary force, so as to bring them under the immediate supervision and influence of the American management. All these men had been in the habit of coming on the work at nine o'clock in the morning and leaving about five in the afternoon; they were requested to be on hand when the work started and to remain until quitting time, and this request caused about half of them to seek employment elsewhere, one of them saying in his letter of resignation, "A man cannot be a gentleman and work under the American administration."

THE BREAKFAST HOUR.

One custom we had the most difficulty in breaking down was the old-established one of stopping for the breakfast hour. The men started work at seven o'clock in the morning, and at eight-thirty the work stopped for half an hour for the men to eat their breakfast; this consisted of bread and tea, and each man brought his tea and teapot with him to the work. Right in the best part of the morning they all stopped work, and gathered in groups of three or four in a place, built little fires on the ground, heated the water and made their tea. We helped matters to a great extent by building a furnace and having the water hot for the men, making it a rule that no other fires should be lighted on the grounds. At the same time we discouraged in every way possible the keeping up of the custom, and finally, one by one, the different trades acquiesced to our wishes in the matter, and before the work was done all but the bricklayers had given up the custom.

THE BRICKLAYERS HUSTLE.

If one department of our work created more comment and discussion than another it was the work of our bricklayers. Shortly after we had taken hold of the work the fact that we were laying nine hundred brick per man per day was published, and from builders in all parts of the country came the cry, "Impossible! the work of our bricklayers does not average over four hundred or five hundred brick per man per day." And yet later on, as the organization became better and the men became accustomed to our methods, this average of nine hundred brick per man per day was doubled on the same class of work. So much comment was made on this that, on the construction of a large brick stack, we went so far as to have the foremen make affidavit each night as to the number of brick laid and men employed on this particular piece of work. The men averaged over nineteen hundred brick per man per day for a month, and the best day's work was twenty-one hundred brick per man per day.

In this connection I may say that the bricks used in this district are larger than those we have here, being 3x4½x9 inches. This record was made possible by providing the most approved hoists for material, so as to have no delay on the part of men waiting for brick or mortar, and by the fact that we used a thinner mortar than was commonly used in England, thus saving time and labor in spreading the beds and setting the bricks in place, and we were able to get and hold the best men by paying more than the union rate of wages, which for bricklayers is only twenty cents a per hour.

I will venture to say that if you would go to 90 per cent. of the contracting engineers or builders in England, and ask: How many bricks are you laying per man per day, or just what is your concrete or masonry costing you per yard in place? the answer would be: "I do not know."

SLACK METHODS—THE VALUE OF A SCRAP PILE.

That such a condition can exist is made possible by the fact that, considering the cost of material in England, the contracting prices of doing work generally are away above those of doing corresponding work in this country. To my mind this difference in cost represents what is lost by slack methods of handling work; not slack as far as quality of the work is concerned, but slack in every other way. It is something which only keen competition, such as we have in America, can overcome. England has been pre-eminent in so many lines of industry for such a long time that she has, as it were, been resting on her laurels, not realizing that in other parts of the world tremendous advances were being made along these same lines, and that other countries were assuming an importance in the industrial and commercial world which made England's position uncertain. Some progressive Englishmen realized this long ago, some are just learning the lesson, but the great majority in their conservatism have it still to learn. Go into ninety-nine out of one hundred manufacturing establishments of any kind in England and examine the tools and appliances for doing work. You will probably find the same kind of machines used there today which were used and discarded in this country twenty-five years ago. So long as a machine does its work it is satisfactory; the Englishman has not yet come to the point where, by sitting down and carefully figuring out his cost account, he finds that it may be economy to discard a machine, even though it is doing good work, and replace it by one which will do that same work quicker and at less cost. It has been well said: "The English manufacturer does not know the value of a scrap pile."

THE ENGLISH EMPLOYER.

The English employer is prone to lay the blame for England's decline in trade on the workmen with whom he has to deal, but our achievement in Manchester is a shining example of what can be done with English workmen under proper management. Generally speaking, the trouble in England is not with the labor, but with the managers.

There is a future for the American who can go to England and take American methods with him, and while it is to be expected he will meet some opposition at first, yet in the end he is bound to win out.

The Americanization of England, to my mind, is bound to come and its day is not far distant.

Dairy Notes.

It seems almost folly to talk about heating water for the cows to drink next winter, when there are few of us, either poor or rich, who know how we are going to heat water enough to make our own tea or coffee. But we think that every degree that the water falls below sixty degrees means a corresponding shrinkage in the milk, and it may be if they are kept in warm stables that the heat of the water can safely be much higher. Of course it is of little use to warm up their stomachs with a warm drink, and then let them stand out in a cold storm or wind. One party claims that in summer, if the cattle are given water pumped directly from a cold well, the cows give less milk than when they have water that has stood in the trough until it is about the same temperature as the air. We never noticed that, but we have noticed the evil of allowing them to drink from a trough filled with ice water. Any one of those tank heaters offered for sale, which carries a pipe up through the water to carry off the smoke, will easily raise the temperature to 60°, if lit but a short time before the cattle are turned out, and almost any old rubbish will do to burn in them.

At the late meeting of the Fitchburg Milk Dealers' Association, the superintendent of the Haywood Farm at Gardner, Mass., said that from carefully kept records he found that it cost last winter 29½ cents a day to feed a cow giving milk, and 20 cents a day for a dry cow. His cows gave an average of 10½ quarts a day, which sold at 30 cents per can (of 8½ quarts we suppose). He thought a man could not make milk and sell it at a profit for less than six cents per quart. This is very true if the 10½ quarts, or 21½ pounds is a fair average of the yield from his cows. This, if an average for the year, would be but about 7300 pounds a year which is too small a production for cows eating 29½ cents worth of food daily, which would be about $117.68 worth a year. Last year was a season of high prices, but we scarcely think a cow could have eaten food to that value in the year, or even 29½ cents worth in a day every day in the week. We know of a herd several of which produce about twelve thousand pounds of milk in a year, and the average of all, from three years old to aged, is about nine thousand pounds, and the owner says the food given costs at market rates about $35 a year, but he saves something from that, because much of his feed is home grown. His milk is sold at a condensary, and he averages about $100 a year income from all cows over two years old, beside the value of the calves raised. There is either a great difference in cows or in their management. His cows are well fed, but not forced for large production, and he knows how many pounds each cows gives at a milking after the calf is three days old, and knows how much food is given, of home grown as well as that bought.

Notes from Washington, D. C.

The fruit division of the Department of Agriculture is continuing its work of introducing American fruits into foreign markets with good results. A shipment of Bartlett pears from northern New York to London has apparently netted about $5 a barrel, while the same fruit sold in New York netted only about $2.50. The discrepancy is so great that the Department people can hardly credit the report. However, the Government agents are apparently making splendid progress in this introduction of our fruits abroad. Shipment of a carload of Ben Davis and Winesaps—not ripe, of course, at this season—was made two weeks ago to London, to see how Englishmen would take to a hard apple thus early in the season. They netted the grower over $3, which was fifty per cent. better than the home value.

The Department is now experimenting with Keifer pears. Some of this variety of pears have been sent already, and although, of course, green, they have brought good returns, and Mr. Taylor, who is managing these shipments, believes there will develop a fine market for this pear abroad. "The advantage of this pears for export," he said, "is in its fine keeping qualities. Bartletts have to be cold-stored, but the Keifer can be common stowed by either car or water and arrive in prime condition. We are going to send Keifers to London, Liverpool, Glasgow and Hamburg."

The last lot of peaches (Connecticut fruit) shipped to London netted ninety-three per cent. a carrier, against about seventy-five per cent. for those sold in New York.

Mr. Barbour Lathrop, with Mr. D. G. Fairchild, special explorer for the Department of Agriculture as assistant, have recently returned to the United States from a third world's tour, and Mr. Fairchild has brought and sent back many queer and wonderful plants and trees for trial in this country. Mr. Lathrop, as has been noted before in this correspondence, is a gentleman of scientific bent, who places both his own services and those of Mr. Fairchild, as well as his money, at the disposal of the American people, by ransacking the four corners of the earth in search of plants which will prove of benefit to the American farmer. His very large expenditure of money in this manner is certainly an unusual form of patriotism, but he believes that the continued prosperity of our farmer depends upon his keeping to the very front in the line of agricultural production. Mr. Fairchild spoke enthusiastically of the hardy bamboo of Japan, which grows there in great forests, and which he said will, when introduced, without doubt, prove one of our most valuable and beautiful trees. Nothing can be more entrancing, he said, than a bamboo forest, with the brilliant green stems ribbed with gray, and the light coming through the light green feathery tops. The useful purposes to which the Japanese put the bamboo are legion, and it would be equally valuable in the United States. The stems shoot up like asparagus, growing thirty feet or so in fifty days. The Department of Agriculture will issue from Mr. Fairchild's pen a bulletin on hardy bamboos. Bamboo growing, Mr. Fairchild thinks, will become a great industry in the United States. There are hundreds of species of this tree in the Andes and the Himalaya Mountains, to say nothing of the tropical sorts.

Egyptian cotton is one of the products which Messrs. Lathrop and Fairchild introduced through the Department of Agriculture on a previous trip, which we are now beginning to grow in this country. The cotton has a particularly long, fine staple, and is used in making fine cloths. The transplanting of the industry to our Southern States will keep several million dollars annually in the country, which was wont to be exported.

The water buffalo of the Philippines is said to be the slowest moving animal which man has ever tried to put to domestic use, only excepting the time when the poor brute goes mad from want of water. The water buffalo drinks through the pores of its skin, and it must at intervals stand in water or have water drenched over it by the bucketful. Otherwise it "runs amuck," and then in a few short minutes it is apt to make up for previous weeks of apparent laziness. When a water buffalo runs amuck death is the only thing which stops its wild and dangerous career. Left to its own devices the animal spends most of the day standing in the water, with only its nose protruding above the surface.

Consul Alger, at Puerto Cortez, Honduras, calls attention to the lack of a market for the cattle of Honduras. It would seem as though the United States might take care of a few at a price which would sufficiently remunerate the Hondurancans. In 1899 and 1900, Mr. Alger says, the country shipped 30,000 cattle to Cuba alone. Some of the ranches on the uplands of Honduras produce fine cattle, as the grazing is excellent.

In response to an invitation from the Maryland Bankers' Association, George William Hill, chief of the division of publications of the Department of Agriculture, addressed that association at their annual convention on the work the Department is doing for the farming interests of the country. Prefacing his talk with the remark that, according to the census, the investment in farm values (exclusive of stock, etc.) amounts to twenty and a half billion dollars, four times greater than the capital invested in manufactures, and that there are five and three-quarters million farms in the United States. He called attention to the evident fact that the prosperity of bankers must depend upon the prosperity of farmers. Farm labor is paid $1,000,000 a day, including Sundays and holidays. In the decade ended last June the United States exported in round numbers eleven billion dollars' worth of products, of which over seven billion dollars worth came from the farm.

Assuming that some of the bankers were politicians, Mr. Hill stated that between thirty-two and thirty-five millions of the American population were farmers and their families, of whom about seven millions were voters.

He then showed how the work of the Department of Agriculture has added to the wealth of the country. First, by seeking to substitute domestic for foreign-grown products which we now import, amounting to over $200,000,000,—such as sugar, $110,000,000, raw silk, over $30,000,000, hides, $30,000,000 tobacco, $15,000,000, Egyptian cotton, $8,000,000 or more, and miscellaneous articles, such as macaroni, nuts, preserved fruits, flowers, bulbs, etc., perhaps $25,000,000,—products which can be largely or entirely grown in the United States. Rice-growing he cited as a practically new American industry, largely fostered by the introduction of the new improved Japanese seed secured by the Department. Six years ago we grew only one-third of the rice consumed; today we produce more than our total consumption. We will begin to export it. Since the introduction of macaroni wheat by the Department, macaroni-making is becoming an American industry.

Second, the Department is working constantly to increase yields of various products. The fultz wheat introduced by the Department is an instance. Thirty years ago the average wheat yield was twelve bushels per acre. Now it is about fourteen bushels. The oat and grass crops have been largely increased through the introduction of improved seed. And third, the Government looks to the prevention or riddance of disease of plants and animals by keeping them out of the country through systems of inspection, by stamping them out, and by discovering and importing parasites to keep them in check. An instance of the good effect of the quarantine is seen in the prevention of the importation of the mongoose by certain enthusiasts. The mongoose kills snakes, but it also prefers fowls and eggs. It is stated that the small island of Jamaica annually spends $1,000,000 on this pest. Summing up, Mr. Hill estimated from $75,000,000 to $100,000,000 annually as a conservative figure of what the Department saves the country at large.

GUY E. MITCHELL.

Cable communication with the Philippines will be established so that the first message can be sent on the fourth of next July. In the celerity with which it runs ahead of the event this announcement beats even the Christmas editions of our modern magazines and periodicals.

Bees and Honey.

The Italian bee is undoubtedly the best bee for beginners to start with, and it is better to pay a higher price for them than to start with a colony of black bees. The Italians are the best honey gatherers, they are the quietest to handle, seldom stinging when the hive is opened, and often going on with their work when the cover of the hive has been taken off. They are less subject to attacks of the bee or wax moth, as they quickly resent the presence of the moth in the hive, and destroy them. They can reach the nectar in flowers where the black bees cannot, and they will store honey from the thin, watery nectar in the flowers after a rain, on which the black bees will not work.

But if one has a colony of black bees or can buy one cheaply, it can be changed to Italians in a single season by introducing an Italian queen that has been fertilized, after having found and destroyed the old queen. By putting her in the hive in a queen cage such as is used for sending them by mail, the bees will become familiar with her while they are gnawing her out of the cage, which they will soon do after they find the old queen is gone. If put in without the cage they might kill her at once. It is well to place the cage well up among the brood frames, and while doing this be careful to remove all queen cells that have been started.

As soon as she is liberated from the cage, she will begin laying eggs, which become larva in about three days, and in ten days the cells in which they are placed will be sealed up. The workers hatch out or change to the perfect form in twenty-one days from the egg in warm weather, but we think this may well be extended to twenty-four days if weather is very cool. For about ten days more they spend their time as nurse bees in the hive, feeding the larva and perhaps building some comb, though some claim that the comb building is only done by the bees that bring in the honey. It is thus about five weeks from the time the queen is introduced until the worker bees start out for their first flight, but as the queen may lay from one to two thousand eggs a day, and the life of the worker bee is but about six weeks, it will not be long after the first Italian bees appear before the colony will all be Italians.

From the queen cells the young queens will come out in about sixteen days, while the drones do not hatch out until twenty-five to twenty-eight days from the laying of the egg. Do not leave too many drone cells in the comb. We would, when examining the frames to cut out queen cells, also cut out all of the drone cells, excepting in such colonies as have a prolific queen, are good honey gatherers, and all quiet and gentle to handle. In this way the drones or males are from the best stock, as well as the queens, and the colonies should be like those from which the queens are descended. It is well enough to allow a colony to send out one swarm, but we would discourage them from sending more than one by giving them plenty of room to store honey, and by cutting out the queen cells about once in ten days after the first swarm comes out. If allowed to send out more than one swarm they will not store up much honey. While from seventy-five to one hundred pounds to a colony is not uncommon in many sections of bee keeping, in New England thirty to forty pounds is a good yield, though the figures for best yields are far above one hundred pounds in the Western States and California and also above one hundred pounds in New England. The amounts we state above are for an average good crop.

If those who keep bees would sow a field of white clover for them they would increase their honey crop and improve its quality. The grass plot around the house may be utilized in this way, as a field of white clover looks as neat and clean as the well-set lawn that has to be mown every week. The clover only needs to be mown when the heads have turned brown, when enough seed will rattle out to start another crop, and thus two or three crops a year can be grown, and the field can be kept in white clover for years if kept rich enough. The manure from the poultry-house makes a good fertilizer for it and should be put on in the fall after the last mowing. Follow this with wood ashes in the spring, or with an application of land plaster, and in a few days the ground will be green until the clover blossoms out, and then it will be full of the pink and white blossoms, as fragrant as any flower bed.

While September is one of the best months for feeding the bees usually, it will not be too late in October. Unless winter begins very early a little feeding early in the month will lead to brood raising, so that they will have a strong colony and plenty of stores to go into the winter, and there will be no need of looking after that part of their care during the winter. An eight-frame hive should have about forty pounds of honey to begin the winter if they are to be kept out of doors. It is claimed that twenty-five or thirty pounds are enough when they are in a cellar, but we always felt that the trouble of moving them, the difficulty of knowing just when to put them in and take them out, and more than all of keeping the right temperatures in the cellar all of the time, more than balanced the slight gain by amount of honey saved, especially if it was made from sugar syrup or candy.

If people would use more honey and less butter on their bread, we think it would be better for their health, especially for children and invalids, at least such as suffer from defective or weak digestive power. Honey is a partly digested form of sugar, and thus relieves the stomach from the task of changing cane sugar to grape sugar, which must be done with other forms of sugar before they can be absorbed into the system. Many resort to honey when they want a remedy for coughs and sore throats, but why not use it as a preventive?

The Indiana Farmer says that a Jay County woman who has been in the business for several years, reports that she has this year two hundred swarms of bees and has marketed nearly 2500 pounds of honey, and as most of it is in comb honey, which sells at from fifteen to twenty cents a pound, she has made a neat sum from her hives. Certainly she has, but the report would be more satisfactory if we knew whether she meant that she took that amount from two hundred hives or colonies, or whether she obtained that and two hundred new swarms from her spring stock. There are many who confuse the terms. When a body of bees with their queen leave a hive to seek a new home they are a swarm. When they are safely hived they become a colony, or hive of bees. We prefer the former term, but do not like to hear them called a swarm after they are settled in their new abode.

Sometimes one will not begin early enough to put on the surplus boxes, or not until the colony has started queen cells in the lower tiers. In that case swarming will take place, and the colony may be so reduced by it that they will work but little in the upper box. It is then a question whether the old colony with its young queen should be encouraged by giving brood comb or should be united with another. We should be governed in our decision of the matter, first by the condition of the colony itself, and the quality of the queen from which it was bred. If she was a prolific one, and the colony had been productive, we would prefer to strengthen it, either by adding brood comb or bees from another colony. Then something might depend upon the number of other weak colonies. If there were but the one we would prefer taking brood from a stronger one than to unite two colonies. If there were two or more we would unite them. And there is another point we would speak of now. In uniting two colonies, add the weaker to the stronger. Even if the hive is not as good, do so, and transfer to the better hive later on, perhaps in the spring. But a good beekeeper should have no poor hives.

When experts say that bees do not get the nectar from the red clover, and cannot until they are bred with longer tongues, few of them would say that bees got none from red clover, but that they meant they obtained but a small part of what was in it. The outer part of the blossom of the red clover has much shorter tubes than the centre, as any one can readily ascertain by examination, and there is no doubt but that they reach some of this, especially where the growth was not so rank as to make an unusually well developed blossom. Without the use of the microscope one might not see the bees get this nectar, but one can see them busy in the clover field from morning to night when it is in full bloom, and we think they are too wise to work there without any returns.

A farmer tells in the Epitomist how to keep bees in farmers' style. He bought a hive of bees two years ago. He built a shed for a hive by driving down some stakes, on which he nailed cross pieces about a foot from the ground, on which he laid boards for a floor; he then made a roof about three feet higher and boarded up the back, leaving it open to the south. That hive has not been moved since, excepting to clean away the dirt twice a year, and to take the honey. They have not taken more than an hour a day for care, have not cost a cent for feed, while the family have had honey whenever they wanted it, and he now has eight colonies instead of one.

Soft Coal for Domestic Use.

In view of the fact that, although autumn is upon us, the strike in the anthracite coal region is still in force, the householder is confronted with the problem as to whether he will pay $10 or $12 a ton for anthracite coal, or find some substitute for use in the cooking range and the heating furnace. The inconvenience caused by the coal strike was felt by all classes of the community, but it is upon the people of moderate means and upon the poor that the burden will fall with greatest weight; for to them the price of anthracite coal will be positively prohibitive.

At the same time it is possible to over-estimate the difficulty of the situation, for although anthracite is the ideal fuel for cooking and heating purposes, it is not by any means the only one available. This has been proved by the enormous demand for gas stoves which has occurred during the past few weeks; and those householders who make a practice of substituting gas stoves for coal ranges during the summer months will undoubtedly continue to use gas as long as the present high prices for coal continue. Indeed, there are many who prefer to use this fuel throughout the whole year, claiming that it compares favorably in cost for cooking purposes with anthracite coal. Another substitute that is available is the coal-oil stove, which has been perfected to a point at which it may be used both for cooking and heating at a cost which is considerably less than that of anthracite coal or gas; while careful attention to the question of combustion has enabled the makers to put upon the market oil stoves which will do their work without producing unpleasant odors in the house.

Wood is, of course, too expensive a fuel, at least in the large cities, to be suggested as an alternative, even at the prevailing high price of anthracite; nor are the grates of the ordinary kitchen stove or basement heater altogether suited to the use of wood, although it could be burned in them at the cost of close attention. In such houses as have open fireplaces, wood fuel can, of course, be used to great advantage, and in localities where wood fuel can be delivered at a reasonable figure, there is certain to be a marked increase in the sales of cord-wood. Indeed, we think that those farmers and owners of wood land that are advantageously placed as regards transportation, would find it to their interest to make arrangements for the delivery of cord-wood in the nearest towns and cities during the coming winter months.

Although electricity has been applied with a measure of success to the work of heating and cooking, it is not likely that there will be an appreciable success in its use for these purposes, the cost being too high for the limited means of the average householder.

Although the fuels that we have mentioned will all be used to a greater or less extent, it is to soft or bituminous coal that the public will have to turn during the winter months as the cheapest and most satisfactory substitute for anthracite. After careful inquiry among the coal dealers and general coal interests, we were satisfied that when the public begins to buy soft coal, as it will have to do before very long, the dealers will be able to supply all that is needed at a cost not to exceed, even in the suburbs, $5 or $6 a ton. We are assured by one of the largest dealers that there is no doubt that, even if the strike should continue for several months longer, it would be possible for householders to obtain an abundance of bituminous coal at the price named and probably for something less. Nor is there any quality in soft coal which renders it unfit for domestic use. Indeed, as a matter of fact, practically no other fuel is used, or has been used, for domestic purposes in Great Britain, and while the cooking ranges differ somewhat in design from those used in this country for anthracite coal, it will be quite possible for the householder, by using a little judgment, to burn soft coal to advantage in the ordinary American cooking stove.

The most important fact to remember is that the great quantities of gas thrown off when soft coal is first ignited render it necessary to supply considerably more air above the bed of fuel than is the case with anthracite coal. Thus, in replenishing the kitchen stove, it will not do to fill the grate entirely full of fresh fuel, since this would result in the rapid lowering of the even temperature, which would not be restored until the mass had become ignited and the gases had been somewhat burned off. It will be found that the best method is to feel small quantities of fuel to the fire at frequent intervals, keeping the lower drafts closed more than they would be in burning anthracite coal, and keeping the upper draft constantly open. For use in the heating furnace, soft coal will be found to give good results when once the proper manipulation of the furnace has been learned. It should be understood at the outset that more constant attention will be necessary, for the reason that soft coal burns more quickly and will not remain incandescent for so long a time as anthracite coal.

During the daytime the attendant will have no difficulty in keeping a steady fire if he is careful to feed the furnace frequently, to keep the bottom drafts but slightly open, and to give a liberal feed of air through the air inlet in the furnace door. Owing to the rapidity of combustion of bituminous coal, it will not be possible to bank up the furnace for the night and leave it with a certainty that there will be a live fire remaining in the morning; but this difficulty can be overcome if a ton of anthracite is laid in with the winter's supply of soft coal, and the anthracite used only for banking up the fire over night. A ton of anthracite used for this purpose should suffice to tide the household over the period of high prices.

There is one feature connected with the use of soft coal, however, which, unless it be carefully safeguarded, may introduce an element of danger. We refer to the heavy deposit of soot in the flues which will occur when soft coal is used. This soot, unless it is swept out at stated intervals, will accumulate, and being inflammable would be liable to ignite and produce a fierce fire in the chimney, with a consequent risk to the dwelling. It sometimes happens that the ends of rafters or beams are, by careless or ignorant construction, allowed to project into the chimney flues. These might become ignited, and carry fire to the interior of the house. There is further danger that the shower of sparks from a burning chimney would ignite the shingle roof of the suburban cottage. These risks may be obviated by sweeping the chimney, say once in two months. The "chimney-sweep" is an important personage in the old countries, and it would be a curious incidental development of the strike if he should make his appearance, even temporarily, in this country.—Scientific American.

Drought in Australia.

Mr. Bray, our Consul-General at Melbourne, writes that the long continuance of the drought has so far diminished production that the purchasing power of the commonwealth has been considerably reduced. He sends an extract from one of the agricultural papers which says that the position of the country will soon be very critical unless rain relieves the distress. The drought has maintained its pitiless hold upon the country for several years. In the State of Victoria, the districts north of the dividing range are parched, and the outlook for the harvest, which is due in a few months, is ominous. The situation is still worse in the back country of New South Wales and Queensland. Stock is perishing, and many squatters, as the ranchmen are called, have no hope of saving more than a remnant of their animals. Large areas of grazing lands in Queensland have not a sign of greenness.

Still the work of extending irrigation in the highland regions of inner New South Wales and Queensland is going steadily on. Wherever artesian wells are yielding a large supply of water there are today fertile oases amid the deserts of unproductive land.

There is one peculiarity about irrigation in Australia; very little of it is derived from running streams, and irrigation improvements are, therefore, very different, for example, from those in Egypt and California.

The reason why the rivers are not very useful for irrigation is that the tributaries lose all, or a great deal, of their water by evaporation or percolation before they reach the main streams. The result is that the Darling, Murray and other important rivers contain so little water during the summer and autumn months that it cannot be used to flood irrigation channels.

We should never have heard of irrigation in Australia if it had not been for a most interesting discovery. It was found that the water which disappears from the many mountain regions is not by any means all lost through evaporation. A great deal of it sinks through permeable strata of the rock, and collects deep under the ground in artesian reservoirs. It needs only be brought to the surface to cover many areas with fertility.

When it was found that a large part of the dry regions of Australia have immense resources in underground waters, the people began to sink artesian wells. The work began in 1881 and is today being pushed more vigorously than ever. The greatest centre of artesian wells is a vast region in Queensland, north of the sources of the Darling River. Along a line which extends north, northwest, south and southwest in the form of a half-circle, are over 360 wells, ranging in depth from one hundred feet to over three thousand feet. The quantity of water from these wells is variable, the majority of them yielding at least one hundred thousand gallons each every day. Some of them yield one, three and four million gallons a day. There are many wells in other parts of Queensland.

In New South Wales the wells are much fewer in number, though there are several important centres, particularly at Bourke and Winton, where hundreds of thousands of sheep and cattle obtain their water supply from these artesian wells. In Victoria, South Australia and West Australia, the boring of wells has scarcely yet begun on an important scale, though in the past two or three years water has been obtained in copious supply at a number of points.

But in Australia there is nothing like the large areas of land restored to fertility that may be observed throughout southern California. In fact, the artesian waters are used more to supply the millions of sheep and cattle with the drink they must have or perish than to spread over the grain fields and fruit farms. It remains to be proven whether vast areas of the continent may be reclaimed for farm crops by filling irrigation ditches with artesian supplies. At any rate, the boring of these wells has opened enormous areas of the interior high lands, that were formerly useless, to the successful pursuit of stock raising.

The Sub-Treasury System.

The independent treasury system was established by Act of Congress in 1846, after the Government of the United States had twice established a Bank of the United States modeled after the plan of the Bank of England.

The first Bank of the United States was created by the Act of Feb. 25, 1791. The charter expired 1811. The government stock was sold by 1802 at premiums as high as forty-five per cent., and, including the dividends received, the United States made nearly fivty-seven per cent. on the investment in the stock of this bank.

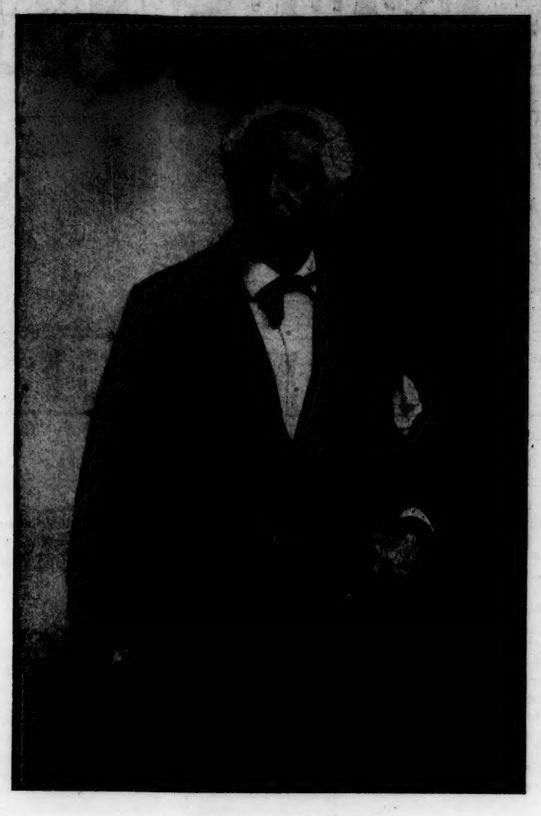
When the charter of this bank expired, Congress refused to renew it, and the Government moneys were removed to the State banks in 1811. Specie payments by the banks south of New England were suspended in 1814, and the issue of bank notes increased from $28,000,000 in 1811 to $110,000,000 in 1815. The currency, being irredeemable, depreciated twenty to twenty-five per cent

The second bank of the United States was chartered for twenty years on April 10, 1816, to March 3, 1836. The capital stock was $35,000,000, of which the Government took $7,000,000, issuing bonds for the subscription, and five of the twenty-five directors were appointed by the President. The indebtedness of the bank, exclusive of deposits, was limited to the amount of its capital stock, and its notes were receivable in all payments to the United States. It took charge of the treasury funds, transfer of stocks and negotiation of loans for the Government free of charge. The Secretary of the Treasury had the power, however, to direct the deposits of public moneys elsewhere than in the bank and its branches, which might be established anywhere in the United States. In 1829 President Jackson raised the constitutional question against renewing the charter of the bank, and in 1833 directed the withdrawal of the public moneys from the bank of the United States and the deposit of them in State banks. This led to expansion of note circulation, to the suspension of specie payments and the panic of 1837.

The experience of the Government with the State banks in which public money was deposited was very unsatisfactory, and the independent treasury system was established as a measure of safety, and at the same time it was provided by law that customs revenues should be paid only in coin.

The treasury system was established solely for the safe keeping of the public moneys. Public opinion is against the establishment of a central national bank with branches all over the United States, and is opposed to the deposit of public moneys in any banks without adequate security. The law permits collections from internal revenue and from miscellaneous sources to be deposited in national banks upon the security of United States bonds, but prohibits the deposit in banks of collections of customs duties.

Perhaps the remedy for the evils arising out of the sequestration of currency by the treasury during periods of great business activity might be found in removing the restrictions as to the deposit of collections of customs and in permitting these for security in addition to Government bonds, of such other bonds as savings banks are allowed to invest their deposits in. It might also be well to permit deposits to be made in State banks furnishing such security, for it is very doubtful if a measure that would benefit national banks alone could get through Congress.



GEORGE FRANCIS TRAIN

Author of "My Life in Many States and in Foreign Lands."
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Leopold II.

The announcement that King Leopold of Belgium has finally decided to visit the United States in the early part of next year creates an especial interest in this monarch's personality, as he will be the only crowned head who has ever set foot on American soil. Besides, he has just gained a good deal of notoriety because he drove away his daughter, the Princess Stephanie, from her mother's bier.

This was not only a cruel thing to do, but it was a very stupid act, for Leopold II. has no popularity to spare. There is a good deal of revolutionary sentiment just now in Belgium, which a popular king can very often check. Princess Stephanie's terrible offence, in the eyes of her father, was that eight years after the death, in 1881, of her first husband, the Archduke Rudolf of Austria, she married the Count of Lonyay de Nagy Lonya, which second union the King of the Belgians regarded as a mesalliance, although it was approved by the Emperor of Austria. Surely the banishment of the princess from her father's court during her mother's lifetime was sufficient punishment. Leopold II., who has been styled "the great king of a small nation," is the absolute ruler of thirty millions of people, and a modern "captain of industry." He is an extremely busy man, working all the time like a Trojan, and taking little or no rest. He rises at five o'clock in summer and a little later in winter. As soon as his toilet is completed he takes a brisk walk in the Laeken Palace gardens. At seven o'clock he is seated at his desk, immersed in examining the contents of the mail bags brought to him from Brussels by couriers.

The king answers his correspondence briefly, and, should the case require it, promises a fuller reply later on. At half-past seven a carriage arrives regularly from the royal stables in Brussels with voluminous correspondence, which the king reads over very carefully before breakfast. After this meal he is at work again in his study until half-past nine, when he takes a "constitutional" with an orderly officer. At about eleven the king returns to the palace and drinks two tumblers of water. He then attends to more mail and takes a short walk or drive.

This active and regular existence has proved very beneficial, causing King Leopold to exhibit an amount of strength and energy remarkable in a man of his years.

The king's hobby is horticulture, and he is devoted to scientific research and inventions, but he has no ear for music; in fact, he detests it.

He is the son of Leopold I., the uncle of Queen Victoria, and was born at Brussels, April 9, 1835. He married in 1853, when only eighteen, the Archduchess Marie Henriette, a great-granddaughter of the famous Empress Maria Theresa of Austria, and ascended the throne Dec. 10, 1865. The Berlin Conference, in 1885, constituted the Kongo State in western Africa, with Leopold II. as sovereign. This State is the successor of the International African Association, founded by the King of Belgium in 1876, and organized by Stanley. By his will, dated Aug. 2, 1889, Leopold II. bequeathed to Belgium all his sovereign rights, and, by the convention of July 3, 1890, he gave Belgium the right to annex the Kongo State after a period of ten years. Government is in the hands of an administrator at Boma, the capital of the Kongo State, and of bureaus at Brussels supervised by King Leopold.

The Canadian government appears in a truly paternal light in its present relation to the Doukhobors. These, having reached what doubtless appeals to them as the natural conclusion that it is woeful sin to hold cattle or to compel the services of beasts of burden, have turned loose all their live stock; whereupon the government is taking care of it with the intention of selling it at auction and using the proceeds to help the former sinners get through the coming winter.

Labor is willing to admit that there may have been a Socialist or so who has expressed a desire to chip in and aid the miners; and quite indignant at the suggestion of any official co-operation. The attitude, complimentary enough to labor as a whole, seems hardly calculated to make the individual Socialist over-delighted at giving his individual mite.

With anthracite coal selling anywhere from $12 to $20 per ton, and bituminous coal high in proportion, the value of the woodpile seems to be on the increase. It is not many years since the demand for cord wood was much larger than at present, when all the railroad engines produced their steam supply from wood instead of coal. It seems strange, in our woodland districts, even in many back towns, to see the increasing use of coal, when former generations depended entirely upon wood for cooking and heating. It is likely, if the coal strike continues, that the farming classes, especially those possessed of woodlots, will make greater use of wood and a corresponding less use of coal. Stern necessity may demand a change in the custom of burning so much coal. It is a remarkable fact that there is double the area of growing wood in each of the New England States at the present time that there was fifty years ago, when everybody depended upon wood for household supply. In city markets the price of wood has advanced considerably, though of course this advance will only be temporary, and will show a decided falling off as soon as the coal strike is settled and the normal supplies of coal are received from the coal regions.

Secretary Shaw claims that wool is not raw material, but it is the result of labor, plus capital invested, plus grass and roots and grain. Hence, in his estimate free trade in raw materials would not include wool. He further says: All the nations of the world, including the United States, export in round numbers $10,000,000,000. We export $1,400,000,000. We keep ninety per cent. of our own markets and we get fourteen per cent. of the export markets of the world. Of the aggregate balance of trade in favor of the twenty-six nations that have any balance of trade at all in their favor we get 24 per cent. Twenty-two nations of the earth have a balance of trade against them of $2,000,000,000. We supply 24 per cent, of it, and the other twenty-five nations supply 76 per cent.

Literature.

Henry Seton Merriman's latest book, "The Vultures," derives its title from the name applied to the attaches of the different foreign offices, whose duty it is to keep their eyes and ears open and report to their government any suspected movement on the part of any other government. In this work reticence, alertness and courage are required, and Mr. Merriam (as he chooses to be called) has created a character possessing these virtues to a remarkable degree in Reginald Cartoner, an English official. The scenes of the story are laid for the most part on Russian soil,—where this clever author appears to be entirely at home. Prince Bukaty of Warsaw, whose estates have been confiscated by the autocratic Russian government, is under police surveillance because of his revolutionary ideas. His titled son Martin and daughter Wanda also share their father's views, but their course of procedure is less obtrusive. Kosmaroff, of Polish parents, a born leader of men, is closely allied with Prince Bukaty, and one well calculated to stir up the people against the government. Affairs reach a climax at St. Petersburg: The czar is assassinated and the people make a vain attempt to take advantage of his death. Martin Bukaty loses his life, Countess Wanda is forced to flee, and the old prince is placed under even more strict surveillance. In the meantime there has sprung up a warm attachment between the Countess Wanda and Cartoner. The former is compelled to choose between love and duty. "Duty is best, is it not?" she asked of Cartoner. "It is the only thing," he replied. Then dramatic scenes follow fast, and Mr. Merriam has the skill to produce them vividly with the semblance of reality. He surrounds his rugged characters with an atmosphere of mystery, unfolds a subtle plot, injects brilliant dialogue, and arrives at his climaxes without tiresome detail, all of which makes "The Vultures" a clever and absorbing book. [New York: Harper & Bros. Price, $1.50.]

This excellent novel by F. Hopkinson Smith will be welcomed by all who have enjoyed this versatile author's previous books. It is a lengthy tale of the South, immediately preceding the civil war, although most of the scenes are laid in New York city or in New England. The story is concerned with the career of Oliver Horn, who goes to New York to earn a living. The Horn family is a good representative of Southern chivalry. Richard, the father, is an inventor whose inventions have eaten the family's resources. Discouraged by his mother from taking up the work of a painter, Oliver becomes a clerk in New York, where he eats his heart out longing to become an artist. His mother relenting, he studies art evenings, and while doing so meets a Miss Grant. The love of his heart and soul is given him while yet he must struggle with poverty and want. Oliver's eventual success is assured, and after he has achieved it there comes the news from his father that his invention, which had promised large returns, is inferior to a rival's. The elder Horn goes to examine the other man's invention, and there does what few could do, congratulate his successful rival, while he himself is empty-handed. The blow is all but fatal. On his deathbed comes the news that the Horn invention is also necessary, and the old gentleman is able to leave behind the successful result of his life work. The book abounds in scenes of struggle for success by hard work. It also gives a trustworthy picture of art in America at that period of American history. The characters are so admirably drawn that we would gladly know them. As strong and as wholesome a story as has been written in many a day is "The Fortunes of Oliver Horn." [New York: Charles Scribner's Sons. Price, $1.50.]

The collection of poems which Mr. Johnson has had published in this neat volume express a variety of thoughts. Some are suggestive of the sweetness of the rose; in others there is a minor strain, which at times becomes oppressive. The themes are varied, ranging from "The White Man's Burden," of which Kipling wrote, to "Dewey at Manila." The opening poem, "The Winter Hour," is suggestive throughout of the evening spent by one's hearthstone, when:

> Friend draws closer unto friend,
> Like travelers near a journey's end;
> In casual talk some common hope
> Finds fresher wing and farther scope;
> The eye has language fit to speak
> Thought that by day 't were vain to seek
> Out of their silence.

In conclusion the poet sings:

> So, when with late farewell and slow,
> The guests into the night shall go,
> Each pulse by sympathy more warm,
> Forgetting the forgotten storm,
> And thou alone into the blaze,
> Thrilled with the best of life, shall gaze
> With hunger for the life divine,
> Oh, be that blessed moment mine;
> With thee, who art my winter hour,
> Book, picture, music, friend and flower.

[New York: The Century Company.]

Society's attitude toward one who has committed a crime, been adequately punished and who is endeavoring to live a natural life is the theme of Reginald Wright Kauffman's well-named book, "The Things that are Cæsar's." John Haig stole money under circumstances which enabled him to escape. Bishop Osgood, his good uncle, believed that those who do wrong should pay the penalty which society had imposed, after which the man may resume former relations. But John had a different experience. Released from prison, his uncle, the bishop, secures for him, with the recommendation of Billy Gwynne, a respectable politician, a position on a newspaper. The fact that he is a jail bird becomes known, and his position becomes so unpleasant that his uncle finds him a place in a bank. While at work there, a former comrade of the jail appears, and John obtains for his friend, with the bishop's aid, a position as bell-ringer at the church,—without disclosing his friend's past life. Later a detective recognizes John at the bank. When John went home to tell his uncle his latest misfortune he found that clerical gentleman full of wrath. The bell ringer's record had just been disclosed to him. The discussion which ensues between the bishop and his nephew sets forth the untenable attitude which society so often assumes. But other misfortunes befall the hero. The young lady he loves, Phyllis Gwynne, daughter of the politician, discards him on learning the facts, but, woman-like, she later is eager to "take him back" after he proves himself to be a man worthy the respect of all. It is an interesting study, this which the author presents, and the moral is obvious. It is a worthy book throughout. [New York: D. Appleton & Co. Price, $1.50.]

Tregantle, a green our-year-old stallion in Dick Curtis' stable, is reported to have trotted a mile in 2.10 recently.

Poultry.

Practical Poultry Points.

We often see directions for the farmers to save all unmerchantable potatoes and other roots, and boil them and mash them up with a little grain for the hens, saying that they are worth more for them than for the hogs. We do not believe that statement. Potatoes and turnips when boiled are too watery for fowl, and the potatoes have too much starch to make a perfect food. If either are boiled they want not a little grain stirred into the mash, but a great deal of grain, and some meat with the vegetables. They may help to make a good ration when there is no other green food to be had, but we would prefer to have them chopped rather fine than to have them boiled. Then they may be put in the mash or given separately for the hens to pick at as they pleased. But the best way we ever fed turnips or beets to the hens was to cut them in halves and let the hens pick at them as they please. If not given too many there would soon be nothing left of the beets and only the skin of the turnips.

The New York Packer has a long article to prove that poultry prices are likely to be high this winter, as poultry keepers and farmers sold much of their flocks last fall, keeping many less than usual, and during this season have been more willing to sell eggs than to raise chickens, and those they did raise were many of them sold young, instead of being kept to mature. The large packing concerns have been steadily buying young fowl all summer and fattening them by systematic feeding, until they sell as fat dressed poultry. Some of them have thousands of birds undergoing this process. One concern is using a thousand gallons of buttermilk a day, which is mixed with ground feed and stale bread for feeding to poultry. They pay the farmers cash for thin light fowl, and have built up hundreds of buying stations in the past two years. As they have reduced their feeding, dressing and packing to a science, we may hope to get better poultry if we have to pay a higher price. Last year too many came in that were but poorly fattened, poorly dressed and poorly packed, and the natural result was a decrease in the demand, and a low range of prices.

The Farmer's Review tells us that an American laboring in Singapore, India, saw some Brahma chicks running about. He inquired to whom they belonged, and was told that they were the property of a Buddhist priest, and that they had been raised in an incubator. As soon as convenient, the American found his way to the house of the priest, thinking he would see some ancient arrangement for hatching chicks. To his surprise he found instead a modern incubator made in the United States.

At a New York State Farmer's Institute the reader of an essay on poultry gave his method of feeding to get eggs in winter. Take one part of corn and two parts of oats and have them ground together quite fine. To two hundred pounds of this add one hundred pounds of ground wheat or of bran and middlings. To ten quarts of this mixture add one quart of animal meal, and moisten with skimmilk if you have it. Feed this in the morning in V-shaped troughs, giving as much as they will eat in fifteen minutes, and gather up what is left at that time. At noon give green feed of cabbage, beets or turnips cut up. An hour later give light feed of small grains, scattered in chaff or straw. The night feed, at 3.30 P. M., is equal parts of wheat, oats and corn, scattered in the straw so that they will work until dark to find it. Keep oyster shells where they can pick them when they please. Have dust bath of road dust or coal ashes for them, and provide plenty of fresh water. Use kerosene oil on the roosts and insect powder in the nests. With early hatched pullets or young hens through their moult this gives eggs all winter.

Because turkeys will take a wide range in search of insects, especially grasshoppers, for food, it does not follow that they should be made to depend upon the insects entirely, or that they should have no other food while the grasshoppers are plenty or none after the insects are gone. We used to follow the practice of giving the young turkeys a feed of grain in the morning early and at night, and then letting them roam at will during the day. This served a double purpose. It aided their growth and fattening, and it brought them home to roost in the orchard near the house at night, where they were safer from foxes and other poultry thieves than they would have been in the woods. And when frost had killed the grass and the grasshoppers, they found plenty of food at home three times a day, and did not run their flesh off looking for what was no longer to be found. We never had to confine them in pens to fatten them, though we have seen that plan work well after they were well grown, and the pen was not a small one, but we attached them to home, as the farmer hitched his horse to the hay stack, by their teeth, or whatever serves the turkey instead of teeth. Thus he had fat turkeys both at Thanksgiving and Christmas, for, as about three-fourths of them were hatched under hens and not under the hen turkeys, we had them of various ages.

We have seen hundreds of Canadian-bred turkeys fattened on a ten-acre lot, and then sold as Rhode Island turkeys, but the field was large enough to give them a feeling of freedom, and they did not seem to feel as crowded as one-tenth of that number would upon one acre. With food thrown over at different parts of the field they roamed backward and forward, always sure of getting enough, and perhaps tempted to eat more when they found a new supply than they would have done if it had all been put in a trough for them. While Rhode Island breeds and raises good turkeys, it is the Rhode Island system of feeding that gives them their reputation, and we suspect that many of what are sold as Vermont turkeys are hatched out across the Canadian border and brought to Vermont to be properly fattened. We regret that the hillside farms of Massachusetts and Maine do not grow more turkeys. We know that the loss by foxes is a drawback, but by following the plan we have outlined this need not be large. We have raised them without a loss on the South Shore, with a wood that was a noted resort for foxes, and where many were killed, within a quarter of a mile of our house, and not a dog on the place.

The poultry keeper may have ensilage for his fowl in winter if he desires. Get a tight barrel, or as many of them as he thinks he will need, put in cut corn, clover or grass, and pound it down well as often as it is a foot deep, then add more and repeat the pounding down, then head up the barrel, and let it remain until wanted. No green food could be much better.

Poultry and Game.

The poultry trade is in about the same condition as last week. Northern and Eastern fresh killed not very plenty and selling readily at quotations. Western stock plenty and dull. Choice roasting chickens are 18 to 20 cents, broilers 15 to 16, common to good 15 to 16 cents. Extra choice fowl 14 to 15 cents and common to good 12 to 13 cents. Green ducks 15 to 16 cents and geese 15 cents. Pigeons $2.50 a dozen for choice, 75 cents to $1.25 for common to good, squabs, choice large $2.50 a dozen. Western iced lots in only fair demand, broilers 1½ to 2 pounds each 14 cents, 2½ to 3 pounds each 12½ to 13 cents. Four-pound chickens, 14 cents. Fowl, choice, 13½ to 14 cents, common to good 12½ to 13 cents, old roosters 9 to 9½ cents. Fancy spring turkeys 16 cents, common to good 12½ to 15 cents. Western frozen stock very dull. Choice chickens 14 to 15 cents, common to good 10 to 12 cents. Fowl 12 to 12½ cents for choice, 10 to 11½ cents for common. Turkeys 20 to 21 cents. Live poultry in good demand for the Jewish New Year, and good lots sell readily. Fowl and chickens at 11 to 12 cents, roosters 7 to 8 cents.

A little game begins to come in. Black duck $1 a pair, teal 75 cents. Plover $3 a dozen for best, but there are some for less. Snipe, yellow legs and other small shore birds from 50 cents to $1.50 a dozen. No venison has reached market yet, but as they begin to shoot the first of October there will probably be some in before the end of the week.

Horticultural.

Orchard and Garden.

Is the good old Baldwin apple to be abandoned in New England? We read of hundreds of trees being set in Massachusetts and Maine, mostly Ben Davis, with scarcely a Baldwin. We think no apple has done so much for New England as the Baldwin, but we would not plead for it for the good it has done, but for the good it may do in the future. It is a good grower and makes a hardy, thrifty tree, and the fruit is a good keeper well into the winter, or even in spring if put in cold storage. To our taste there is no apple any better in winter than a good ripe Baldwin, and there are but few that sell at a higher price, and those few are nearly all of such varieties as prove either too tender for New England or are but poor bearers. We know the Ben Davis and the Gano have gained a reputation for bearing early and heavy crops, and that they keep longer than most other kinds, but when we have to omit the Maine and Canadian Baldwin from our market list we shall feel that there has been a loss that will not be easily regained. And another apple which is a favorite with us is not being planted so often as its merits would warrant. We mean the Gravenstein. We know it as a good grower, a handsome tree and a profitable bearer. It is a fall apple, but it is always in demand at good prices, being excellent both for eating and cooking purposes, and keeping much better than most of the fall apples. It is hardy as far North as Nova Scotia, and there it is so late that it might be called an early winter apple. The fruit is less troubled by scab than many other varieties.

Some time ago we made mention of the fact that J. H. Hale was shipping peaches in cold storage from his orchards in Georgia, by way of New York, to London, England. We were not able then to give the results, but had no doubt but that he would make it a success. Now we find in the Hartford Courant a statement of the results of three shipments. The first netted, after paying transportation and all charges and commission, about the same as they would have brought in New York. The second netted from fifteen to forty cents a carrier above New York prices, and the third seventy-five cents per carrier more than the New York value. He has lately made a shipment of 200 carriers, 24 quarts each of Elberta from his Glastonbury, Ct., orchards, and probably before this is read another of 300 or more carriers will be sent in another steamer. Hale's peaches are likely to become about as well-known in London as in this country. It is necessary that the peaches should be picked a little harder than they would be for home trade, but they must be well colored. Those shipped Sept. 20 were to be mostly wrapped in paper. The expense of shipping from New York to London is from 38 to 50 cents a carrier.

The United States Department of Agriculture sent its expert assistant pomologist, G. Harold Powell, to superintend the shipment, or rather to note the methods of handling, cold storage, etc. This is in connection with other experiments that are being made under the direction of Secretary Wilson. They include pears, summer apples, Mr. Hale's peaches, and others from the mountains of Maryland and West Virginia, and sweet potatoes. Possibly pineapples and cranberries will be added. Peaches seem to do best at a temperature of 32° to 36°, and apples in barrels at 31°. Apples prove to come out in better condition if put in cold storage when nearly ripe enough for home consumption. If put in too green, they scald. They are also making investigations at Philadelphia, Hartford, Boston, Buffalo, Chicago and Kansas City to obtain information upon the following points.

Apple Storage—Temperature 31-2°, 34-5°; degree of maturity; influence of color on keeping quality and on apple scald; immediate vs. delayed storage after picking; wrapped vs. unwrapped fruit; closed vs. ventilated packages; influence of locality on some varieties.

Cultural Conditions—Influence of sod vs. tillage; influence of different kinds of soil; influence of young vs. old trees; influence of well-cared for vs. neglected orchards.

Peach Storage—Degree of maturity when picked; immediate vs. delayed storage after picking; wrapped vs. unwrapped fruit; closed vs. ventilated packages; all when stored in temperatures of 32°, 36° and 40°.

Pear Storage—Influence of temperatures, degree of maturity, immediate and delayed storage after picking, wrapped vs. unwrapped, closed vs. ventilated packages, etc.

All of this is practical work, designed to aid the fruit grower, and we are glad to see our Secretary of Agriculture interested in it. It is much better than tea growing in Carolina.

We do not believe that the apple crop of the country is to be extraordinarily large this year, despite the heavy export trade reported up to date. The latter is in part due to the larger shipments of fall apples which have been sent and sold, under a better knowledge of when to pick and how to pack them. The New England crop, if good, is not large. Those orchards that had a full crop last year have but a light crop this year. Many trees that blossomed early lost their fruit on one side at least by the May frost, and this was also the case in the fruit-going counties of New York. Reports from southern Missouri and northern Arkansas tell of a light crop, perhaps twenty to twenty-five per cent. of a full crop there. The Canadian crop is not reported as a heavy one, and there is nearly a month before the winter apples should be harvested. The excess of wet weather may cause much dropping, or induce scab that will make the fruit unsalable, or a high wind may change the best fruit to windfalls, that must be sold low. We advise fruit growers not to be too ready to accept a low price for their apples. It is policy for the apple buyers to foretell heavy crops and low prices, but after they have put the apples in their warehouses prices are apt to rise rapidly. There is a good foreign demand, and New England fruit has a good reputation.

A report from London fruit dealers says that the crop there does not look as well as was thought a few weeks ago, as wind has blown off a large proportion of the fruit, and the crop will not be larger than last year, which was one of the poorest on record. The same party reports crops in France, Belgium and Holland to be very light, and winter apples from this country are likely to have the field to themselves. They are anxiously awaiting shipments from the United States and Canada of well-sorted and well-packed winter apples, but we fear that the law for inspection and marking of varieties in Canada will give them an advantage over apples from the United States. There are some shippers who may have a reputation for always sending good fruit, but they should have contracts with the dealers, as the bulk of the fruit is sold by sample, and a barrel is opened and the apples turned out for the inspection of buyers. As many men would say, if there is one barrel that has poor fruit it is sure to be that one which is taken for the sample barrel. For this there is but one remedy, and that is not to have a barrel in the lot that has poor fruit in the middle of the barrel or that is not well packed.

A PASTORAL SCENE.

Export Apple Trade.

The shipments of apples for the week ending Sept. 27 were: from Boston, 11,216 barrels to Liverpool; from New York, 7724 barrels to Liverpool, 4510 barrels to London, 7069 to Glasgow, and 1288 to other ports, a total of 20,591 barrels; from Portland, 1864 barrels to Liverpool; from Montreal, 22,267 barrels to Liverpool, 2564 barrels to London, and 15,798 to Glasgow, a total of 40,729 barrels from that port and a grand total of 74,300 barrels from the four ports. Last year for same week the total was 33,815 barrels. Since season opened 60,820 barrels have been shipped from Boston, 97,715 barrels from New York, 1878 from Portland, 94,384 from Montreal and 652 from Halifax, a total of 255,449 barrels from five ports. Corresponding period last year, 49,767 barrels, with none from Portland. The following cable despatch was received from Liverpool last Friday: "Sales 7000 barrels. Steamer Ivernia selling. Demand very active. Baldwins in general $2.40 to $3.60, Greenings $2.16 to $3.12, Ramshorns $3.12 to $4.08, Hubbardston $2.64 to $3.72, Gravenstein $3.34 to $4.32."

Domestic and Foreign Fruit.

The apple market is quiet, but with a steady demand for home trade and exports. There were 18,476 barrels received and 11,216 exported, which left enough for the home trade, but prices held very steady. Gravenstein sold at $2.25 to $2.75, King $2 to $2.50, Maine Harvey $2 to $2.25, Snow and Wealthy $1.75 to $2.25. Twenty-ounce, Greening and Pound Sweet at $1.75 to $2, Hubbardston, Geneatian and Colvert $1.50 to $1.75. Pippins and Porters $1.25 to $1.75, common green $1 to $1.25. From farmers' wagons, red 50 to 90 cents a box and green cooking 40 to 60 cents. Pears in good supply with light demand. Bartlett $1.50 to $2 a bushel, Seckel $1.50 to $1.75, Anjou $1.25 to $1.50. Peaches in only moderate supply. Native 35 to 75 cents a basket and Michigan bushel baskets $1.25 to $1.50. Plums steady for fresh stock, eight-pound baskets Damson 30 to 40 cents and large eating varieties 25 to 35 cents, prunes 40 to 50 cents. Grapes in fair supply but many not first-class. Only 85,441 baskets, 6461 carriers of domestic, 131 barrels foreign last week, against 285,777 baskets, 10,584 carriers a year ago. Pony baskets western New York, Delawares 15 to 18 cents, Niagara 14 to 15 cents, Concord 12 to 13 cents, Worden and Martha 10 to 12 cents. Cape Cod cranberries $4.50 to $5.50 a barrel, $1.50 to $1.75 a box. Muskmelons quiet. Colorado Rocky Ford standard crates $1.50 to $1.75, small crates $1.25. Pineapples, smooth Cayenne $1.50 to $2.25 a case.

California oranges are scarce. Some late Valencia $6.50 to $7 for No. 2, 176 and 200 counts $5.50 to $6.50, 150 counts $5, 216 counts $4.50, 250 counts $4. Some a little green at lower rates. Sorrento, 160 and 200 counts $3.50 to $4.50. Some Jamaica oranges coming in and very good for so early in the season, at $5.75 to $6.25 a barrel. Maori lemons, 300-count cases fancy $5, choice $4.50. Messina and Palermo, fresh arrivals, 300 counts $3.50 to $4, repacked summer shipments $3, 360 counts 25 to 38 cents less, 420 and 500 counts Palermo $2.25 to $2.50. New Turkish figs are in at 13 cents a pound. Dates in storage 4 cents.

Vegetables in Boston Market.

The trade in vegetables is not very brisk, though the rains have limited the supply from nearby points, yet they may have kept back some buyers as well. Prices are not going higher now, excepting on a few things that are nearly out of season. Beets and carrots are 40 to 50 cents a box, and parsnips 75 cents. Flat turnips 40 to 50 cents a box, and yellow turnips $1 to $1.25 a barrel. Native onions 85 cents to $1 a box, $2.25 to $2.75 a barrel. Leeks are 40 cents a dozen, and chives 75 cents to $1. Radishes 40 cents a bushel box. Celery 50 to 60 cents a dozen for early and 75 cents for Paschal. Hothouse cucumbers again at $5 to $5.50 a box. Peppers 50 to 75 cents a basket. Tomatoes are a little higher at 75 cents to $1 a bushel. Egg plant 75 cents a box. Squash at $1 a barrel for white and marrow, $25 a ton for Turban and $20 to $25 for Hubbard. Mushrooms 50 cents to $1 a pound.

Cabbages in good supply 60 to 75 cents a barrel. Cauliflowers 6 to 7 cents each by the box and sprouts 15 cents a quart. Lettuce 15 to 25 cents a bushel box, spinach 15 to 20 cents and parsley 20 cents. Romaine 50 cents a box, escarol and chicory 25 to 30 cents. Green corn higher at 60 to 75 cents a bushel. String beans from 50 cents to $1 a box, shell beans 75 cents to $1.25. Sieva $1.25 to $1.50, and Lima $1 for common, $1.25 to $1.50 for improved.

Potatoes a little dull, but steady. Aroostook Hebron or Green Mountain 50 to 53 cents. New York round white 48 to 50 cents. Sweet potatoes quiet. Norfolk yellow $1.75 to $2, Eastern shore $1.75 to $1.87, Jersey double-head barrels $2.25.

The Hay Trade.

The hay market is now steady again, as the new crop is coming freely, and good lots sell readily. The poorer grades sell slowly, and there are too many of them sent in.

The receipts in Boston were light last week, being 414 cars of hay, 50 of which were for export, and 37 cars of straw. Corresponding week last year 425 cars of hay, of which 177 were billed for export, and 15 cars of straw. Choice timothy is $18 in large bales and $17 to $17.50 in small bales. No. 1 large $17 to $17.50, small $16 to $17. No. 2, either size, $14 to $15. No. 3 and clover mixed $11 to $12, clover $10 to $11. Long rye straw $13 to $14, tangled rye $10 to $11 and oat $9. Providence had heavy receipts, but much of the shipments are overgraded or are off grades, and they sell slowly. Better grades in demand. Choice timothy, large bales, $19, small $18.50. No. 1 large $18 and small $17.50, No. 2 $16 and $15.50, No. 3 $13 and $12. Clover mixed $13 to $14. Rye straw $15.

New York city is well supplied and market is weaker. Receipts were 7297 tons, against 8109 tons last week and 9609 tons same week last year; 605 tons straw arrived. Prime timothy $18 to $19; No. 1, $17 to $18; No. 2, $15 to $16; No. 3, $13 to $14; shipping, $11.50 to $12; clover mixed, $12.50 to $14; clover $11 to $13; long rye straw, $13 to $14; oat straw $7 to $8; wheat straw, $7 to $11. Jersey City and Brooklyn in about the same condition as New York, but with prices a little firmer on the low grades.

The Hay Trade Journal gives the highest prices at $19 in New York, Brooklyn, Jersey City, Providence and Philadelphia, $18 in Boston, $16.50 in Baltimore and Richmond, $16 in Pittsburg, $14.50 in New Orleans, $14 in Cincinnati, $13.50 in Nashville, $13 in Chicago and Louisville, $12.50 in Memphis, $12 in Minneapolis, $11.50 in St. Louis, $11 in Duluth and $9 in Kansas City. Prairie hay is $11 in Chicago and $10 in Pittsburg, $8.50 in Minneapolis, $8 in Kansas City and New Orleans. Wheat hay $13.50 in San Francisco.

The Montreal Trade Bulletin says: "The market is quiet, and prices still have a downward tendency, new No. 2 hay having sold at $7.50 to $8 in car lots here, and we hear of other sales at $7 to $7.50, the $8 rate being, it is said, for old hay. The supply at the moment is rather restricted, but larger receipts are expected next week. At any rate as soon as harvesting is over there will be an abundance of hay to be disposed of."

Massachusetts Crop Report.

In its Crop Report for September, which will appear on or about Oct. 3, the Massachusetts State Board of Agriculture will include the following summary of crop conditions in Massachusetts, compiled from a careful study of the reports of about 150 crop correspondents:

On the whole, Indian corn is one of the poorest crops ever secured. The frosts of the first week in September severely injured the crop on high land in some sections. Practically none of the crop ripened at that time, and even with the absence of frost from that time to the time of making returns, much still remains to mature. That which has ripened is not well eared, and in almost all cases less than an average crop will be secured. The stover is fairly well developed, and should be of good nutritive value where not injured by frost.

Owing to the late cutting of the first crop of hay and the cool weather of September, rowen is somewhat below the average crop. The dull weather of the past month has been very unfavorable for securing the crop, and much of it still remains in the field.

Fall feed is in excellent condition, and in most sections pastures and mowings will start next season in good condition. The lateness of haying put all farm work back so much that less than the usual amount of fall seeding has been done for the State as a whole. The dull weather has also had a tendency to delay work in this line. Such seeding as was put in early generally made a good catch, and is now in good condition and growing well.

Onions are rather less than an average crop in most sections, although there are numerous local exceptions. Like all crops requiring a long period of summer weather to reach maturity, onions are not yet ripened in many cases, and still need some warm weather for best results. Thick necks appear to be somewhat prevalent, but practically no blight is reported. Prices are very satisfactory so far as reported on.

The yield of potatoes was somewhat shortened by rot, but not as much as was feared a month ago. The quality of the crop was generally excellent where unaffected by rot. Root crops are generally reported as in excellent condition and promising well. Celery is also a good crop as far as reported on. Other late market garden crops are generally fair, but not extra good, as the cool weather has operated to hold them in check.

Apples improved in condition during the month and a good crop will be secured, winter varieties, however, not giving as good results as fall varieties. The fruit is unusually fair and of good quality. Pears are, as previously indicated, a very light crop. Peaches are uneven, but the crop as a whole was above the average in yield. There was some complaint as to the quality and flavor of the fruit. Grapes are a heavy crop, but did not ripen well in many cases and are still liable to injury from frost. Cranberries are a light crop in the sections of commercial production, although some bogs will yield very well indeed.

In addition to reports of correspondents and general information as to climate and crop conditions throughout the country, this report will also contain an article on "Improvement of Pastures," by Prof. J. W. Sanborn. This article is in a sense supplementary to his article on "Beef Production in New England" in the July bulletin, and will also be found of particular value to dairy farmers.

Boston Fish Market.

The trade in fish is lively for the amount that has been received during the past week, which has been a little less than usual. Prices therefore are naturally a little higher. Market cod sells at 3½ cents, large cod at 4½ cents and steak cod 7 cents. Haddock is 3 cents, hake and pollock 3 to 3½ cents, flounders 3½ cents, cusk 2½ cents, tautog 4½ cents and scup 6 cents. Bass are 16 cents for striped, 9 cents for black and 8 cents for sea bass. Pompano and Spanish mackerel are 16 cents a pound, snappers and sheepshead 12 cents, bluefish 8 cents and whitefish 10 cents. Lake trout is 10 cents and sea trout 6 cents. Halibut in fair supply at 12 cents for white, 8 cents for chicken and 7 cents for gray. Yellow perch are 8 cents, white perch 9 and pickerel 14 cents. Eastern salmon is 28 cents and Western 14 cents. Eels steady at 10 cents, fresh tongues 9 cents and cheeks 7 cents. Frogs' legs $1.50 a dozen. Clams in demand at 50 cents a gallon, $3 a barrel in the shell. Shrimp $1 a gallon. Lobsters 17 cents alive and 19 cents boiled. Oysters $1 to $1.20 a gallon for ordinary Norfolk, $1.10 to $1.25 for selected Norfolk and fresh opened Stamfords, $1.35 to $1.40 for Providence River.

New York Market.

Potatoes in fair supply, with steady demand. Long Island in bulk $1.65 to $1.75 a barrel, Jersey round $1.50 to $1.62, sacks $1.50 to $1.60, State, 180 pounds $1.50 to $1.62, Jersey sweets $2 to $2.50 a barrel, and Southern yellow $1.37 to $1.70. Onions in light supply, owing to the rains; much poor stock. Connecticut, white $2.50 to $3 a barrel, yellow $2 to $2.50, red $1.75 to $2. Long Island and Jersey yellow $2 to $2.25, red $1.75 to $2. Orange county yellow $1.75 to $2 a bag, red $1.50 to $1.75, white $1 to $1.50, and some poor lots at 50 to 75 cents. White pickling onions $5 to $6 a barrel, $1.75 to $2 a basket. Beets 75 cents to $1 a hundred bunches, and carrots $1. Celery extra large 40 to 50 cents a dozen, small and medium 5 to 30 cents. Cucumbers Shelter Island $2 to $4 a barrel, State $2 to $3.50, Pickling size, Rockland County $2 to $4 a thousand, State $2.50 to $3.50, Egg plant 60 to 75 cents a barrel, Jersey peppers green 50 to 75 cents a barrel, and red $1 to $1.25. Parsnips $1.25 to $1.50 a barrel, pumpkins 60 to 75 cents Summer squash 50 to 75 cents, marrow 75 to 90 cents and Hubbard $1. Russia turnips, Canada 80 to 90 cents a barrel, Jersey 65 to 75 cents, white $1 to $1.50.

Cabbages plenty at $2 to $2.50 per hundred. Fancy cauliflowers $2 a barrel, but many poor to prime at $1 to $1.75. Brussels sprouts 5 to 10 cents a quart. Corn 75 cents to $1.25 a hundred for Hackensack; 50 to 75 cents for other Jersey, and 50 cents to $1 for up-river. Lettuce, western New York 10 to 25 cents a dozen. Boston 10 to 15 cents. Jersey 50 to 75 cents a barrel. String beans, Southern 50 cents to $1 a basket. Green peas $1 to $2 a basket. Lima beans, Jersey, potato, 50 to 75 cents a bag and flat 25 to 50 cents. Okra 75 cents to $1 for half-barrel basket, Jersey tomatoes 25 to 50 cents a box.

Apples are quiet, but choice lots in demand for export, and held firm. Fancy red table varieties $2.25 to $3, King $2 to $2.50, Gravenstein, Duchess and Maiden's Blush $1.75 to $2.25, Fall and York Pippins and Codling $1.75 to $2, Baldwin, Greening and Twenty-ounce $1.50 to $2. Fair to good grades $1 to $1.50. Open-head barrels 75 cents to $1.25. Crabapples, small yellow $3.50 to $4.50, large red $2 to $2.50. Pears in fair supply. Bartlett $2 to $4 a barrel, Seckel $2.50 to $4.50, Bosc $2 to $2.50, Clairgeau $1.75 to $2.25, Anjou $1.75 to $2, Sheldon, Swan's Orange and Keifer $1.50 to $2, Louise Bonne $1.25 to $2, common cooking $1 to $1.25. Peaches move slowly, bushel baskets Ohio and Michigan 75 cents to $1.75, baskets Pine Island poor to prime 40 to 75 cents, other Jersey 25 to 75 cents, Up-river 35 to 65 cents, Connecticut 25 to 60 cents, carriers Pine Island $1.25 to $1.75, Connecticut $1 to $1.75. Western New York $1.25 to $1.75, Up-river 2-basket carriers 65 cents to $1.

Plums are dull. Eight-pound baskets large table blue or green 25 to 35 cents, common blue and Damson 20 to 30 cents, prunes 20 to 35 cents. Grapes in light supply. Up-river cases, Delaware 75 cents to $1.25, Niagara 75 to 85 cents, Concord 55 to 75 cents, western New York, pony baskets, Delaware 16 to 18 cents, Niagara 12 to 14 cents, black 10 to 12 cents, large red, 8 to 10 cents, black in trays, $1.50 to $2 a hundred pounds. Cape Cod cranberries, fancy dark, $5.75 to $6 a barrel, good to choice $5.25 to $5.50, poor to fair $4 to $5, crates, prime to fancy, $1.70 to $1.90. Muskmelons, Colorado Rocky Ford, $1.25 to $2.50 a case, small cases 50 cents to $1.50.

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—The exports from the port of Boston for the week ending Sept. 27, 1902, included 4676 pounds butter and 127,680 pounds cheese. For the same week last year the exports included 169,380 pounds butter and 523,5 9 pounds cheese.

—Bradstreet's reports exports wheat for week 5,077,070 bushels, against 5,435,323 bushels last week and 6,470,352 last year; since July 1, 60,614,135, bushels, against 78,652,197 bushels last year. Corn for the week 74,952 bushels, against 49,508 bushels last week and 585,706 bushels last year; since July 1, 1,055,811 bushels, against 12,718,640 bushels last year.

—The shipments of boots and shoes from Boston this week have been 93,401 cases, against 97,494 cases last week; corresponding period last year 93,849. The total shipments thus far in 1902 have been 3,175,693 cases, against 3,563,236 cases in 1901.

—Eggs are in liberal supply, but there is a steady demand and market is firm. Nearby and Cape fancy are 28 to 30 cents. Eastern and Northern choice fresh, 23 to 24 cents, fair to good, 19 to 21 cents, Michigan fancy, candled 22½ to 23 cents, Western choice or selected 21½ to 22 cents, fair to good 19 to 20 cents, dirties 15 to 17 cents. Refrigerator lots, April, 20 to 21 cents and summer 19 to 19½ cents.

—Receipts for the month of September foot up 89,113 cases, against 57,816 cases for the same month last year. The stock in cold storage is 171,609 cases, against 150,633 cases at the same time last year.

—Beef is dull, with prices steady; extra sides, 11½ to 12 cents; heavy, 9 to 11 cents; good, 7 to 8½ cents; light grass and cows, 6 to 6½ cents; extra hinds, 15 cents; good, 10 to 13 cents; light, 6 to 8½ cents, extra fores, 9 cents; heavy 8 to 8½ cents; good, 7 cents; light, 5 to 6 cents; backs, 7 to 11 cents; rattles, 5 to 7½ cents; chucks, 6 to 9½ cents; short ribs, 10 to 17½ cents; rounds, 7 to 10 cents; rumps, 8½ to 10½ cents; rumps and loins, 11½ to 19 cents; loins, 12½ to 22 cents.

The mutton market is fairly steady. Spring lambs, 6 to 9½ cents; fancy, 9 to 10 cents; yearlings, 5 to 7 cents; mutton, 5 to 7 cents; veals, 9 to 10½ cents; fancy and Brighton, 10½ to 11 cents.

—Pork is unchanged, with lard easier: Short cut and heavy backs $23, long cut $24.50, medium $22, lean ends $29.50, bean pork $18.50 to $19.50, fresh ribs 14½ cents, corned and fresh shoulders 10½ cents, smoked shoulders 10½ cents, lard 12½ cents, in pails 12½ to 13½ cents, hams 13½ to 13½ cents, skinned hams 14 cents, sausage 11½ cents, Frankfurt sausage 10½ cents, boiled hams 19 to 19½ cents, bacon 17½ to 18½ cents, bolognas 10 cents, pressed ham 13½ cents, raw leaf lard 13 cents, rendered leaf lard, 12½ cents, in pails 13½ to 13½ cents, pork tongues $23.50, loose salt pork 12 cents, briskets 14 cents, sausage meat 10½ cents, country dressed hogs 8½ cents.

—Capt. Henry Masterman of Lincoln, Neb., now in his ninetieth year, is claimed to be the oldest soldier of the civil war now living. He served eight years in the British army, was a member of the Royal Guards at the coronation of Queen Victoria, served in India, came to America in 1850, and in 1862 enlisted in the Twenty-eighth Iowa. He was the oldest member of the regiment, his son being the youngest member of the same regiment. He fought in seventeen of the notable battles of the war. He is now serving his twenty-third year as chaplain of Farragut Post at Lincoln. He has officiated at the funerals of 170 of his comrades, all younger than himself.

—The world's exports of grain last week included 3,085,952 bushels of corn from four countries and 10,117,070 bushels of wheat from five countries. Of this the United States sent 74,950 bushels of corn and 5,077,070 bushels of wheat.

—Exports of dairy products from New York last week included 1226 packages of butter to Liverpool and 250 to London, 700 boxes of cheese to Liverpool, 1828 boxes to Newcastle, and 700 boxes to Hull, a total 1376 packages of butter and 3228 boxes of cheese.

—The shipments of live stock and dressed beef last week included 2001 cattle, 745 sheep, 4087 quarters of beef from Boston; 2487 cattle, 1716 sheep, 16,225 quarters of beef from New York; 700 cattle from Baltimore; 358 cattle, 200 quarters of beef from Philadelphia; 1942 cattle, 2102 sheep from Montreal; a total of 7488 cattle, 4564 sheep, 20,512 quarters of beef from all ports. Of this 3816 cattle, 1762 sheep, 17,177 quarters of beef went to Liverpool; 2545 cattle, 2125 sheep, 2110 quarters of beef to London; 853 cattle, 300 sheep to Glasgow; 220 cattle, 159 sheep to Bristol; 1200 quarters of beef to Southampton, and 44 cattle, 190 sheep, 125 quarters of beef to Bermuda and West Indies.

—Reports from farmers indicate that the peach crop this year will be the heaviest ever raised in New Hampshire, the estimate from the raisers within a radius of fifteen miles of Manchester being five thousand bushels.

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MASSACHUSETTS PLOUGHMAN
NEW ENGLAND JOURNAL OF AGRICULTURE.

Pears are evidently so plentiful out Attleboro way that some people have them to throw at trains.

An estate by any other name cannot always be made quite as profitable to private parties even in politics.

After the recent experience of a member of the craft in Maine, burglar men will be even more wary than others of "lone widows."

That horse chestnuts are being tried for fuel suggests the wish that a great deal of modern American humor could be utilized in the same fashion.

Is it possible that Sir Thomas has given up the idea of beating us on water, and is tentatively investigating the possibility of doing it in the air?

Now is the time when the wise young man sits down and meditates, balancing his fond desire for a new gray hat against the general use of soft coal.

Who is not glad that Philadelphia has got the pennant,—except those who have made their patriotic little wagers on the outcome of the baseball season.

Mr. Robert A. Miller, so one may judge from appearances, has conceived the playful ambition to prove that Deer Island is synonomous with flight.

Mr. Campbell, who rowed away from the pursuing whale off Nova Scotia the other day, can doubtless now appreciate his namesake's "Pleasures of Hope."

Persons who have been so careless as to forget that they had a ton or so of coal put away are now tracing their genealogies right back to the ten wise virgins.

One of the unfortunate results of the big strike is a marked tendency of organized labor, here, there and everywhere, to imitate our old friend Oliver Twist.

The statement that it's not the clothes that make Lady Algy but Lady Algy who makes the clothes does not necessarily mean that the lady is her own dressmaker.

English eyes, according to a recent statement of several London oculists, are said to be weakening, but the English press still considers that they are sharp enough to see the large figure of Mr. J. Pierpont Morgan.

Naval officers declare that the recent suicides in the navy are the direct result of overwork. Perhaps this will discourage the popular fallacy that life in the navy is a very leisurely existence.

Nobody is likely to object to the new Presidential dinner set, although a few members of the press will still maintain the inalienable right of the American people to say who shall be invited to a private lunch with the President.

The policemen who arrested actor Lackaye in St. Louis the other evening seem to have little respect for the dramatic profession. And yet, as it afterward turned out, Mr. Lackaye was only playing the part of Taffy in real life, and using his muscles to keep somebody else from being injured.

Cigarettes will still be smoked at Yale, despite Mrs. Nation; in fact, on her recent visit, there is a strong supposition that the axe-armed champion was more or less smoked herself. Meantime, with the first signs of the coming national campaign already plainly visible, it is a wonder that the Prohibition party seeks no measure to suppress this one particular reformer. The party has not many votes to spare, and Mrs. Nation has already been an expensive luxury.

There are those, of course, who will rejoice that Emile Zola will write no more books, but for all that the personality of the big Frenchman will probably give his writings a permanent place in future libraries. Strength of conviction and sincerity of purpose are literary assets too rare among writers of the present day to make it a small matter to have written powerfully, even on phases of life that are not generally discussed at the breakfast-table.

Freight rates in England are about ten times the rates prevailing in this country, and nearly the same as they were sixty years ago. This is a great hindrance to trade in the manufacturing districts, especially those in the Midlands, who must transport their products to the shipping ports. They are talking about a ship canal from Birmingham to Liverpool, and another from Birmingham to the river Humber. This last is by widening and straightening the river Trent. Whether they will succeed in either of these projects is yet uncertain. In this country our trouble is not so much in the freight rates or in a lack of railroads, as in a lack of freight cars and locomotives. The roads seem to be trying to increase their facilities, but they cannot keep pace with the demands of trade when our crops are moving. Last year the Pennsylvania Railroad had more than twenty thousand cars built, making their whole number over two hundred thousand, yet they have not enough, and are preparing now to increase their number between six and seven thousand cars, besides from five thousand to six thousand freight cars to take the place of those demolished or destroyed last year. Every year a large number are broken up because worn out or in some way damaged beyond repair.

Our coal famine does not seem to be off yet, but the dangers of a milk famine are averted. The farmers' organization, known as the New England Milk Producers Union, stuck manfully together, and after a four days conference succeeded in getting the contractors last Monday to agree to pay 37½ cents a can this winter. On April 1, 1900, they got a rise of two cents per can over previous summer. Oct. 1, 1900, a further rise of four cents for three months, and two cents for two months over previous winter. April 1, 1901, there ensued the famous pitched battle of that spring between the farmers and contractors, lasting for ten days, resulting in the permanent removal of the surplus clause and other obnoxious conditions. Oct. 1, 1901, improvement in form of contract, resulting in further net increase of price. April 1, 1902, rise over previous summer of two-thirds of a cent per can. Oct. 1, 1902, rise of net card price over net card price of previous year of three cents. A total rise to the farmer of 6½ cents per can, together with improved conditions, in three years. The contractors have held a meeting since, and have agreed to charge wholesale dealers and stores forty-seven cents a can, and private families eight cents a quart. The milk dealers of Somerville and Cambridge have voted to adopt the same prices. When the farmers and milk producers get together and stick together they are a powerful orginization, and although we are now a buyer instead of a seller of milk, we believe that the price they are guaranteed is not too much at present prices of hay and grain.

The Vermont Experiment Station has been investigating the question of cider making by the use of the hand grinders and presses, and found it unprofitable. As an average it required one bushel of apples to make two gallons of cider, while with modern machinery and an eight-horse power gasoline engine a bushel of apples would make four gallons of cider at a cost of 2.3 cents a gallon. They found making apple jelly from cider to be profitable. A hundred pounds or eleven gallons of cider would make twenty-five pounds of pure jelly, at a cost of about one cent a pound for the cider used, that is, twenty-five cents worth of cider for twenty-five pounds of jelly. For table use one pound sugar for each five pounds of cider will make forty pounds of jelly, and the material costs about three cents per pound of the finished jelly. Marmalade was made by cooking the apples in cider, and eighty pounds of fresh fruit, eight gallons of fresh cider and thirty-five pounds of sugar, making 116 pounds of marmalade, which with apples at twenty cents a bushel and cider at 2.3 cents a gallon, cost less than two cents a pound for materials. When the fruit was pared and cored by hand, it lost over twenty-five per cent. in weight, but when put in whole, and put through a colander after it was cooked, it lost but five per cent. In making cider they found that the common method of allowing the cider to ferment and sour at will was unprofitable. To add vinegar mother and cultures of acetic acid and controling the temperature good vinegar was made, but the process was slow and wasteful. To mix equal parts of fermented cider and old vinegar changed the whole to good vinegar quickly, but this requires keeping on hand a large stock of old vinegar.

It is stated on reliable authority that forty per cent. of the people of the United States are farmers or living upon farms, and they not only produce enough to feed and clothe themselves and the other sixty per cent. of the inhabitants, but annually send away $1,000,000,000 of their surplus products to other countries.

This is a remarkable statement and shows the great possibilities of this country in crop production, as the result of the labor of two-fifths of the inhabitants in supplying the material for food and clothing for the whole, with such an immense amount left over for the people of other lands. It is literally "having bread enough and to spare."

Another thing, while in many of the other countries of the world the prosperity of the people depends largely on the success of a single crop or only a few at the most, as, for instance, that of sugar beets in Germany, wheat and rye in Russia, wool in Australia, etc., the United States is blessed with a great number and variety of the products of the soil that help to make the country self-sustaining.

It is further said that this country produces one-half of the agricultural products of the world, and our surplus after supplying our own needs is more than that of all other countries, although we have only about one-fiftieth of the inhabitants of the world.

What would become of some of these countries without the surplus afforded by our own, might be a difficult question.

Some have begun already to tell us that even here consumption is gaining perceptibly, at least in some respects, on production, and that it is only a matter of time when there will be so many inhabitants in the United States that nearly all of our products will be required at home. What then will the people of other lands do?

But I think that this time is yet far in the distance, so far, indeed, that we need not as yet to borrow much trouble about the matter.

We have not yet come anywhere near the limit of production in the United States. There is still much land to be occupied, much that is only imperfectly cultivated, and most of the rest is capable with proper effort of still greater returns.

We know as yet very little concerning the possibilities of our agriculture. But we are learning every year, and with our immense territory extending from ocean to ocean, and from Canada on the North to the Gulf of Mexico, there is an immense area of land, and a great diversity of climate and soil. This admits of the productions of the temperate zone with many of those of a sub tropical climate in the South.

Our Manufacturing Achievements.

COST OF OUR INDUSTRIAL INVENTORY.

Statistician S. N. D. North, in the September Review of Reviews, presents some striking statistical statements regarding the marvelous growth of our manufacturing industries. We abstract as follows:

The twelfth census of manufactures was a gigantic statistical work, more difficult and complicated than any similar inquiry ever undertaken. It has been completed within two years from the date upon which the field work began.

It has cost $1,200,000 in round numbers to take and collate the statistics of manufactures for 1900. It is a goodly sum of money; but it is worth what it cost to find out in definite and tangible figures just where the United States stood industrially in the last year of the nineteenth century.

A CENTURY'S MARVELOUS RECORD.

The balance sheet, as we strike it from the census figures, tells a story of progress and prosperity so impressive as to be almost startling. The average American is no doubt too much addicted to bumptiousness when he talks or writes about our achievements as a people. But he has his census to justify his statements, for the statistics show that, however much he may seem to be given to exaggeration, he does not, in fact, exaggerate when he measures our progress by that of other nations.

Tench Cox, analyzing the manufacturing statistics of the census of 1810, and reading into them twenty-five per cent. of products beyond what was actually returned, ventured to estimate the total value at something less than $200,000,000, including in that total the products of the household industries, which then embraced a great preponderance of the articles now manufactured under the factory system. Contrasted with that figure, we now have a gross total of $3,014,287,498, or an increase of more than sixtyfold. There is nothing in history which approaches or approximates this increase.

It must remain for all time to come the unique and phenomenal chapter in the world's economic development.

A BIRD'S EYE VIEW.

The following figures embody what may be called a bird's eye view of the progress of manufactures during the last half century:

	1900	1880	1860
No. establishments	512,339	253,825	140,433
Capital	$9,835,086,909	$2,790,272,606	$1,009,855,715
Wage earners	5,316,820	2,732,595	1,311,246
Total wages	$2,328,691,254	$947,953,795	$378,878,966
Cost of material used	7,348,144,755	3,396,823,549	1,031,605,092
Value of products	13,014,287,498	5,369,579,191	1,885,861,676

Measuring progress by long periods of time it suggests that it has been possible in one century in one nation statistically to record an advance nothing at all equivalent to which occurred in any one thousand years in any other country at any preceding epoch. It appears to be a satisfactory answer to the contention that the condition of the masses does not improve with the advance of civilization. For, however true it may be that a large part of the increments has gone to comparatively few, the figures represent not merely an increase of wealth, but a distribution and diffusion of wealth such as the world has not known before or elsewhere.

GROWTH OF MANUFACTURES SINCE 1850

In comparison with the census of 1850, there has been an increase in the capital invested in manufactures approximating seventeen-fold; in the average number of wage-earners, about four and one-half fold; in amount of wages paid, about ninefold, and in value of products, about twelvefold. The population of the country has, in the meanwhile, increased two and one-quarter fold, and the value of agricultural products something less than twofold.

The apparent value of products per wage earner has increased from $1065 in 1850 to $2448 in 1900. Another way of putting it may be illustrated by the textile industries, in which it appears that all the cloth necessary to clothe seventy-six million people was made by 640,548 persons, or much less than one person in a hundred. Machinery involves a constantly increasing investment of capital, to make possible this increased efficiency of labor; and the increased horse power employed in manufacturing is, on the whole, the most startling fact brought out by the twelfth census. The total horse-power so employed was reported in 1890 as 5,954,635; in 1900 as 11,300,081, an increase of 89.8 per cent. in ten years—altogether the largest increase shown at any point in the statistics. It is commonly calculated that one-horse power, whether water, steam, electric or what not, is equivalent to the labor of ten men—a very low average, since it makes no allowance for the fact that the engine never tires and never varies.

It means that the horse power employed in our manufactures in 1900 was equal in its producing capacity to the labor of 113,000,000 able-bodied men, working every day in the year. How insignificant in contrast appears the contribution to industrial wealth of the 5,316,802 men, women and children,—the actual average number of persons employed in the census year to direct and supplement this tremendous power. It need figures of this definite magnitude to enable us to understand how rapidly power-driven machinery is increasing its relative ascendency over hand labor in American manufacturing, and how enormously the power of man has increased to develop the wealth which nature holds in store.

AGRICULTURE GIVES WAY TO MANUFACTURES.

An interesting fact brought out by these statistics is the advance of manufactures to the first place among the sources of national wealth, exchanging places with agriculture, which has heretofore been the chief contributor to the annual national increment. Until the census of 1890, the supremacy of agriculture was not open to question. But somewhere in the decade preceding that census, manufactures passed agriculture. The census of 1890 placed the value of the products of agriculture at $2,460,000,000; but it omitted the value of live stock on farms and of stock sold for slaughter, etc., and statisticians have accordingly increased the figure to $3,289,000,000. The gross value of the products of manufactures was returned at the same census as $9,372,000,000. By deducting the value of all materials consumed in 1890, whether raw or partially manufactured, there remained a residue of $4,210,000,000, which may be called the value added to raw materials by the several processes of manufacture. It is a sum just about $1,000,000,000 in excess of the highest estimate of the value of the agricultural products of 1890; and no room is left for doubt that agriculture had thus been left in a subordinate position. This is greatly emphasized by the census of 1900. Agriculture reports a gross value of $4,740,000,000; manufactures "net" value of $8,370,000,000, or nearly twice that of agriculture. This is a demonstration entirely at variance with the common understanding and belief.

At the head of the fifteen grand groups of industries stands the manufacture of food products, producing $2,277,702,010, or 17.5 per cent. of the total gross value of products. The other groups are (2) textiles and their re-manufacture, with products valued at $1,037,484,484, or 12.6 per cent. of the whole; (3) iron and steel, and their multitudinous products, valued at $1,793,490,908, or 13.8 per cent. of the total; (4) lumber and its re-manufactures $1,030,906,579, 7.9 per cent.; (5) leather and its products, $583,731,046, 4.5 per cent; (6) paper and printing, $606,317,768, 4.7 per cent; (7) liquors and beverages, $425,504,167, 3.3 per cent.; (8) chemicals and allied products, $552,891,877, 3.3 per cent; (9) clay, glass and stone products, $293,564,235, 2.3 per cent.; (10) metals and metal products other than iron and steel, $748,795,464, 5.8 per cent; (11) tobacco, $283,076,546, 2.2 per cent; (12) vehicles for land transportation, $508,649,129, 3.9 per cent.; (13) shipbuilding, $74,578,158, 0.6 per cent.; (14) miscellaneous industries, 1,004,092,294, 7.7 per cent.; (15) hand trades, $1,183,615,478, 9.1 per cent.

STATISTICS OF THE TRUSTS.

Perhaps the most interesting showing made by the twelfth census of manufactures is that regarding the so-called "trusts," or industrial combinations. The census makes a separate report for those corporations, of which it was able to locate 185, controlling 2040 plants, located in many States, employing 400,046 persons, or 8.4 per cent. of the 4,749,276 employed in all the manufacturing industries, exclusive of the hand trades, which, obviously, are not susceptible to this form of organization; paying $195,122,980 in wages, out of a total wage of $2,034,215,456, or 9.6 per cent., and producing goods to the value of $1,667,350,949 out of $11,820,784,665, or 14.1 per cent. of the whole. These figures indicate with approximate accuracy the proportion of four manufactures that was controlled by industrial combinations in 1900.

An interesting exhibit connected with industrial combinations shows the actual investment of capital, as returned to the census and the nominal investment represented by the bonds and common and preferred stock issued by them. Their actual investment in manufacturing, including the value of land, buildings, machinery and all live assets, was $1,461,631,743, as compared with $3,093,095,868, the amount of securities issued; thus 47.3 per cent. of the bonds and stock issued by these industrial combinations represented actual investment, such as is covered by the general census inquiry. The excess is what is commonly known as "water," and is based upon the assumed earning power of the corporations. It is not all water, however, because there are certain intangible assets, such as iron mines, railroads and steamboats, woodlands, etc., which are not directly employed in manufactures, and are, therefore, not included in the census return. That the public has already discounted the inflation of value represented in the difference between the two sets of figures is sufficiently evident upon study of the quotations of the Stock Exchanges. The difference between the par value of these industrial securities and their value on the basis of actual investment is about the same as the difference between the par value and the market or selling value.

FACTS REGARDING VARIOUS INDUSTRIES.

The four mammoth volumes devoted to the census of manufactures are full of suggestive items of information about individual industries. For instance, it appears that the total production of liquors, distilled, malt and vinous, in the census year, was 1,325,000 gallons, a per capita consumption of seventeen gallons. There still appears to be work for the temperance societies. Nearly 10,000,000,000 toilet pins were manufactured. The old conundrum—where do all the pins go?—is as far as ever from a satisfactory answer. The manufacture of steel pens reached 6,764,000 gross, and of lead pencils 1,660,000 gross. Of boots, shoes and slippers, 219,235,000 pairs were manufactured, and there were 49,979,000 pairs of rubber boots and shoes made, besides; there appears to be no reason why any of our people should go barefoot. Of woolen and worsted piece goods, 399,141,000 square yards were made, more than five square yards to a person, so that none of our people would seem to need to go naked. Of cotton goods there were woven the enormous quantity of 4,509,750,000 square yards, equivalent to nearly sixty square yards for every man, woman and child in the country. Of hose and half hose, 29,891,000 dozen pairs were made. Perhaps no figures in the whole census mass illustrate more effectively than these the complete revolution in household economy which machine manufacture has brought about. It has relieved the woman of the largest part of her home duties, and thus driven her into the factory, the store and the office.

Farm Hints for October.

HARVESTING WINTER APPLES.

Perhaps the most important work this month is the apple harvest. Nearly all the varieties will be fit to pick before the end of the month, as, if they are intended for market, or for late winter use, they should be picked and packed before they begin to get mellow. Such apples should be very carefully assorted, rejecting all that have fallen from the tree, and all that are wormy or have spots on the skin, whether caused by scab or bitter rot. Make the sizes uniform in the barrels or boxes, and those which are not of a good size had best be kept at home, or sold in the local market for what they will bring. To send them far to market or to export them will be a loss, as they often do not sell for a price that will repay the freight charges. Have them snugly packed that they may not bruise in transportation, and use only new and clean packages for them. Those intended for home use may be left a little longer on the trees, and should be kept in cool and dark place after they are picked until the cold weather makes it necessary to place them in the cellar.

THE CORN HARVEST.

The corn harvest is not now as important as it was when we were young. Many have abandoned the crop because they were so unwise as to think it better to purchase Western corn than to try to grow it in New England. Many more have grown it, but put all they grow into the silo, ears and all, or pick a few of the best ears for grinding and make the rest into ensilage. The latter we think the best way, where the ordinary field corn has been grown, for we think it well to have a little extra corn meal, to give to hogs and poultry, and to such other animals as are to be fattened, or a little whole corn may be very handy at times.

THE ROOT CROPS.

This month most of the roots should be harvested, all but the rutabaga turnips and the parsnips. The latter, as is well known, will keep in the ground all winter, but it is not as well known that if any are to be marketed this fall or winter it is a good plan to leave them out after digging until they have been touched by the frost, or even well frozen. It seems to give them a richer, sweeter flavor, more like that which they have in the spring after being frozen in the soil. Beets and carrots will bear but very little frost, though where the leaves are very abundant the frost will not injure the roots. The rutabagas may stay in until the ground has frozen up solidly to them an inch or two deep, but this needs some care, as it may freeze so solidly early as to make it hard to pull them, and they should not be handled when they are frozen. Celery should be banked soon if it is intended to blanch it in the bank, while that which is to be ready for market at the holidays should be boarded up, or a part of it. About three weeks will usually blanch that first boarded, and as the weather grows to be cold nights it will take longer. Gardeners use the boards on a part of the lot, and then, as that has blanched, move them forward so as to have a load about once or twice a week for market. Cabbages will need to be harvested soon. While they will stand some frost a hard freeze hurts them. They can be kept all winter in a cool cellar, and some put them on boards or rails, roots upward, and cover them with straw and earth, not so deep as to prevent them from freezing, but enough to prevent their freezing and then thawing. Yet many have lost their crop in trying to do this when the drainage and ventilation were not just right. Others have had similar hard luck in trying to keep their celery for winter or spring sales in pits or trenches. We think if one wants to do this it will prove the better way to build a celery house, sinking it about three feet below the banking outside, and providing good ventilation, then watching to see when it is fit for the market. It should not be stored or handled when wet or frosted.

FALL PLOWING AND WINTER RYE.

We would like to see every field that is intended for cultivation next spring, and that has not a crop on it that is to remain over winter plowed or disc-harrowed this fall, and winter rye sown on it. That will keep it from the danger of washing, prevent loss of nitrogen, and leave the field fit for plowing earlier next spring. Then the rye plowed under will add organic matter to the soil, and it will be more friable and more easily dried out and worked. The mowing lands may be topdressed with the manure made through the summer, if any can be spared for that purpose, but commercial fertilizers, aside from wood ashes and potash salts, give better results when applied just as the grass begins to start in the spring.

THE POULTRY YARD.

What we have said about culling the sheep is equally applicable to the poultry. Separate all cockerels not intended for breeding from the pullets, and give them a yard where they can be fed and fitted for market next month. Do not think that it will not pay to feed them until fat. An extra pound or two in weight and two or three cents a pound better price will pay for the corn and leave a profit. While we like to winter a few hens one or two years old if we know them to be good layers or good mothers, we do not want too many of them. They will seldom lay as well as pullets, but if those are kept that were through moulting early, they often give a good account of themselves during the winter, and if mated with a vigorous young cockerel, they will prove early sitters and raise good chickens. Old turkeys, ducks and geese usually lay more eggs and bring out better young than those hatched last spring. Put the young ones to fatten, and let the old ones have a free range and only moderate feed. Buy all breeding stock early, as breeders are now ready to reduce their flocks at prices below what they will ask in the spring.

SHEEP AND LAMBS.

Now is the time for the best culling of the sheep and lambs. Fatten all the culls, that they may be marketed. It is scarcely safe to try to keep over winter a sheep more than six or seven years old, though if an exceptionally good one, and her teeth are good, it may be worth taking the risk. But she should be carefully looked after to see that younger and stronger ones do not crowd her away from the feed trough. The lambs that have grown and matured slowly it is usually better to separate out, and give a liberal feeding, fattening them and selling them as early as possible. They will always be the poorest sheep of the flock if kept, and may not prove good shearers or good breeders. While we would like to see every sheep owner in the Eastern States double his flocks, and many go into the business who do not now keep any, it is of little use unless one can have only the best. Some may have the faculty of taking an animal that has been stunted by poor feeding and bringing it up to vigor again, but we never made much success of it when we have tried it.

SWINE AND FATTENING STOCK.

It is time now to begin to force the swine and other stock that are to be killed this fall to eat all that they can digest, that they may be ready early. Usually prices are higher before Thanksgiving week than they are in December, and this is more likely to be the case this year than usual, as the corn crop generally is a good one, and the feeders will use it liberally and try to sell before the prices drop too low, as they are likely to do as soon as they can fit their stock for market. Already grass-fed cattle are coming forward so as to reduce the price on the second grades of beef, though prime stall-fed stock is not much more plenty yet.

THE BUSH FRUITS.

As soon as the leaves are off the bushes, cut out all superfluous canes and all that are diseased or affected by borers, and burn every stalk taken out. When this is done, work the ground free from weeds or grass, and give a good mulching of manure around the hills, to increase growth of wood and size of fruit for next year. Manure applied in the fall to the rhubarb and the asparagus bed will be of much more benefit than if applied in the spring, and as they are gross feeders, green manure is about as good as well-rotted manure, or that from the compost heap.

Eclipse & Fairbanks WINDMILLS

We have just overhauled an ECLIPSE WINDMILL that has not had a cent put out on it for repairs for 16 years!

IS THIS THE KIND OF MILL YOU WANT?

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CHARLES J. JAGER CO.

174 High St., Boston, Mass.

GASOLENE ENGINES

Our engines are, first of all, safe and to be relied upon; add to this that they are economical and substantially made and you will not hesitate to choose a

SPRINGFIELD ENGINE

for your pumping outfit. Circulars on application. We also deal largely in Wind Mills, Tanks and all kinds of Hand and Power Pumps.

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236 Congress St., Boston, Mass.

The Standard Co. manufacture the best line of Bone Cutters made. We ship any size on trial in competition. The line consists of eleven different sizes for hand and power, ranging in price from $6.73 to $195. The principle of automatic feed, horizontal cylinders, knives cutting across the grain is similar in every size machine we manufacture. Every machine warranted. Send for catalogue.

No. 8. Price $10.50.

STANDARD BONE CUTTER CO., Milford, Mass., U. S. A.

PUMPS

FOR ALL PURPOSES.

HAND, STEAM, POWER,

HOSE AND PIPE

PROMPT DELIVERIES.

CHARLES J. JAGER CO., 174 HIGH ST. BOSTON, MASS.

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Fruit Evaporator

A little factory for only $6.00. For use on an ordinary cook stove. No extra expense for fuel. Easily operated. Evaporates apples, pears, peaches, all kinds of small fruits and berries, corn, pumpkin and squash Send for circular. Agents wanted. A great seller.

MOSELEY & PRITCHARD MFG. CO., (Mention this paper.) Clinton, Iowa.

WANTED.

Trotter to Race.

Must show miles in 2.20 or better. Send full description with price. Address

BOX NO. 344, Springfield, Mass.

FOR SALE.

A pair of bay horses, standing 16 hands high; they are six years old, weigh 2200 pounds together; sound and kind; not afraid of electrics or automobiles. For further particulars apply to F. A. TOWNSEND, 178 Devonshire St., Room 223. Boston. Tel. 3983 Main.

FOR SALE, FOR PROMPT ACCEPTANCE.

RED WILKES PACER, no record, 15.3 hands, 1025 pounds, 7 years old. Blood bay, black points, long tail, shows extreme breeding, sound, clever and improving every day, never breaks, can pull wagon in 2.30. Also

BAILEY WHALEBONE PNEUMATIC, new seat, trimmed and painted maroon; Speedway harness, gold-trimmed, flexible saddle. Entire hitch, costing $800, used two months; $500 cash buys it. CHARLES H. McCARTY, Winsted, Ct.

TODAY THE NAME OF JOHN WANAMAKER STANDS FOR AS MUCH IN HORSE-GOODS AS IN GENERAL MERCHANDISING.

Now is the Time for Horse Clothing

THE ILLUSTRATED ONE HUNDRED AND NINETY-TWO-PAGE HORSE CATALOGUE FREE FOR THE ASKING.

John Wanamaker's,

Philadelphia, Pa.

Write to Dept. 45.

The Markets.

BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WATERTOWN AND BRIGHTON.

For the week ending Oct. 8, 1902.

	Cattle	Sheep	Shotes and Suckers	Fat Hogs	Veals
This week ...	3377	9214	85	19,152	1971
Last week ...	2832	9296	75	21,318	1935
One year ago.	4161	9753	180	20,725	2027

Prices on Northern Cattle.

BEEF—Per hundred pounds on total weight of hide, tallow and meat, extra, $6.75@7.50; first quality, $5.50@6.00; second quality, $4.50@5.00; third quality, $4.00@4.25; a few choice single pairs, $10.00@10.50; some of the poorest, bulls, etc., $3.00@3.50. Western steers, 4¼@8¼c.

COWS AND YOUNG CALVES—Fair quality $30.00@48.00; choice cows $50.00@68.00.

STORES—Thin young cattle for farmers: Yearlings, $15@25; two-year-olds, $18@32; three-year-olds, $28@48.

SHEEP—Per pound, live weight, 2½@3c; extra, 3½@4¼c; sheep and lambs per head in lots, $2.50@5; lambs, $3.75@5.75.

FAT HOGS—Per pound, Western, 7½@7¾c, live weight; shotes, wholesale ——; retail, $2.25@8.00; country dressed hogs, 9@9½c.

VEAL CALVES—4@7¼c ℔ lb.

HIDES—Brighton—7@7¼c ℔ lb; country lots, 6½@7c.

CALF SKINS—60c@$1.50; dairy skins, 40@60c.

TALLOW—Brighton, 4@5c ℔ lb; country lots 2½@3c.

PELTS—40@85c.

	Cattle.	Sheep.		Cattle.	Sheep.
Maine.			F Ricker	27	179
At Brighton.			F S Atwood	24	240
Wardwell & McIntire	11		M Berdell	8	40
Harris & Fellows	35		Roder & Keene	25	
W A Gleason	15		**At Brighton.**		
Libby Bros	20	50	J S Henry	20	
Gould & Libby	10		**Canada.**		
S Tracy	8		**At Watertown.**		
M D Stockman	6		Gordon & Ironsides	654	
P A Berry	20		Beden & Williamson	442	
Howe & Shirley	18		W Laveck	20	
Thompson & Hanson	20	130	J A Hathaway	599	
F W Wormwell	5		**At N E D M & Wool Co.**		
M D Holt & Son	16		N E D M & Wool Co.		2925
New Hampshire.			**Massachusetts.**		
At Brighton.			**At Watertown.**		
J F Payne	13		J S Henry	39	
A C Foss	65	197	W A Bardwell	18	
Lougee & Haynes	23	50	O H Forbush	9	
At N E D M & Wool Co.			**At Brighton.**		
Ed Sargent	15	1	J S Henry	50	
T Shay	6	6	H A Gilmore	14	
A F Jones & Co	32		Scattering	100	
Geo Heath	49	53	R Connors	31	
E F Addin	48	6	A M Baggs	16	
Geo Harris	20		W Mills	18	
At Watertown.			A Wheeler	8	
Sturtevant & Haley	14		C D Lewis	2	
Breck & Wood	40	30	**Western.**		
W F Wallace	108	50	**At Brighton.**		
Vermont.			Sturtevant & Haley	112	
At Watertown.			S S Learned	64	
A Williamson	12	32	A Davis	75	
Fred Savage	27	10	J J Kelley	75	
H N Jenne		20	**At N E D M & Wool Co.**		
N H Woodward	16	150	N E D M & Wool Co	198	3600
B F Combs	53		**At Watertown.**		
E Fisher	8		G A Sawyer		221
At N E D M & Wool Co.			J A Hathaway	444	319
W A Ricker	150	500			
M G Flanders	10	125			

Live Stock Exports.

A sudden decline on cattle at English market, there being heavy Canadian arrivals that flooded the market, the decline being 2½c on common to fair grades, and 1c d. w. on best State cattle. Shipments from this port for the current week 1713 cattle, 1501 sheep and 1 horse. The shipments on three English steamers.

Shipments and destinations—On steamer Anglian, for London, 333 Canada cattle by Gordon & Ironsides, 220 Canada cattle by Baden & Williamson, 20 Canada cattle by W. Laveck, 1 horse by F. W. Whitehouse; on steamer Michigan, for Liverpool, 304 cattle, 319 State and 599 Canada sheep by J. A. Hathaway, 190 cattle by Morris Beef Company, 97 cattle, 583 sheep by Swift & Co.; on steamer Ultonia, for Liverpool, 321 Canada cattle by Gordon & Ironsides, 222 Canada cattle by Baden & Williamson.

Horse Business.

The trade of the week was inactive, there being bad weather together with the fair at Brockton took from the general horse disposals, but dealers are looking forward to a good trade this coming week. Supply on sale somewhat limited. At Moses Colman & Sons sale stable a fair week for good horses for gentlemen's driving and family use at $175@250, horses valued at $75@125 not plenty; saddlers and ponies in demand at $100@250. At Isburgh & Co.'s sale stable a fair sale last Friday, with a good assortment, with some quite inferior, and with the better class sales from $25@240. At Cavanaugh Bros.' sale stable a fair week for heavy draft at $100@250.

Union Yards, Watertown.

Tuesday—Market for beef cattle showed a fair movement when compared with last week. Good cows and steers were wanted at last week's prices, and the various lots found sale. O. H. Forbush sold 690-pound heifers at 2½c; 2 beef cows, of 810@850 lbs, at 2½c, with sales at 2½c, of 780 lbs. J. A. Hathaway sold 10 steers, of 1500 lbs, at 8c; 15 do., of 1475 lbs, at 7½c; 20 do. of 1450 lbs, at 7c; 20 do., of 1400 lbs, at 6c; 30, of 1350 lbs, at 5½c. W. F. Wallace sold a number of cattle at prices favorable to last week.

Milch Cows.

A good line of cows arrived of all qualities at a range of $30@65 per head.

Fat Hogs.

No change on Western that cost 7¼@7½c laid down here. Local hogs ¼c higher, 9½c, d w.

Sheep and Lambs.

For best lambs market price ¼c higher, and on sheep of lower grades ¾c lower. The market well supplied coming from the various sonrces West and North, with some from the East. Values on Western sheep $2.30@4.30 ℔ 100 lbs, and do. lambs $3.30@5.55 ℔ 100 lbs. H. N. Jenne slim sheep of 63 lbs, at 3½c. Lambs of medium grade 4c.

Veal Calves.

Market prices compare favorably, with last week, selling from 5½@7½c, as to quality. N. H. Woodward sold calves of 160 lbs, at 7c. W. F. Wallace sold 44 calves, of 5520 lbs, and 27 do., of 3100 lbs, within last week's range around 6c.

Live Poultry.

Seven tons that arrive in crates of mixed quality from 10½@11½c ℔ lb.

Droves of Veal Calves.

Maine—Wardwell & McIntire, 33; Harris & Fellows, 100; W. A. Gleason, 25; Libby Bros., 50; Gould & Libby, 8; M. D. Stockman, 20; P. A. Berry, 31; Howe & Shirley, 24; Thompson & Hanson, 50; F. W. Wormwell. 5; M. D. Holt & Son, 35.

New Hampshire—J. F. Payne, 6; A. C. Foss, 6; E. Sargent, 10; T. Shay, 20; A. F. Jones & Co.. 70; E. F. Addin, 17; Breck & Wood, 75; W. F. Wallace, 160.

Vermont—A. Williamson, 40; Fred Savage, 95; H. N. Jenne, 25; N. H. Woodward, 14; E. Fisher. 10; W. A. Ricker, 250; M. G. Flanders, 70; F. Ricker 100; F. S. Atwood, 60; M. Burdell, 70; Roder &, Keene, 18; J. S. Henry, 35.

Massachusetts—J. S. Henry, 100; W. A. Bardwell, 28; O. H. Forbush, 6; H. A. Gilmore, 42; scattering, 140; R. Connors, 22; A. M. Baggs, 13; J. P. Day, 15; W. Mills; 16; A. Wheeley, 14; C. D. Lewis, 2.

Brighton, Tuesday and Wednesday.

Stock at yards: 870 cattle, 427 sheep, 15,889 hogs, 767 calves, 120 horses. From West, 326 cattle, 15,400 hogs, 120 horses; Maine, 184 cattle, 180 sheep, 286 hogs, 381 calves; New Hampshire, 101 cattle, 247 sheep, 45 hogs, 12 calves; Vermont, 20 cattle, 35 calves; Massachusetts, 239 cattle, 158 hogs, 339 calves.

Tuesday—Market not heavily loaded with beef cattle, and the general tone fair, notwithstanding the Jewish fast. The Jews were buying, but not as extensive as at other time Light run of Western, and handled by city butchers. No exports went from these yards during the week.

... of 1610 lbs, at 4c. W Mills, 4 cows, of 4030 lbs, at 3½c; 2 cows, of 1950 lbs, at 3c. S. Tracy turned over to H. Goodnough 8 blue ribbon steers (three years old), average 1500 lbs.

Milch Cows.

Dealers and speculators were making up their complement for the Wednesday's trade. The animals were in general of good quality, and for such the demand was fully up to the average at steady prices. Wardwell & McIntire sold 6 milch cows, $35@48. A. M. Baggs sold 15 extra milch cows at $4 a head. Libby Bros. sold on commission 5 choice cows, $50@57. Extra cows, $40@45. Five cows, $30@38. J. S. Henry sold a large number of cows, $35@55.

Veal Calves.

No change from last week, demand fair. W. Mills, 12 calves, 110 lbs, at 6¼c. A. Wheeler, 5 calves, 114 lbs, at 6½c. F. W. Wormwell, 140 lb-calves at 6½c. P. A. Berry, 31 calves, 110 lbs, at 6½c. Choice lots go higher, 6¾@7¼c.

Late Arrivals.

Wednesday—Fully 450 head of milch cows on the market, and fair sales noticed for the extra and choice grades. Prices were much the same as last week, with a slowness of sale for undesirable cows. Beef cows held at prices noted last week, with a fair supply. Libby Bros. sold on commission 2 choice cows at $55; 7 at $50; 6 extra cows, $45 each; some at $30@40. J. S. Henry sold 3 choice cows, $50 each; 2 at $55; 2 at $52.50 each; 4 at $45. W. F. Wallace sold 85 cows, at a range of $32.50@50; 10 at $55. W. Cullen, 50 cows, choice, $55@62. P. A. Berry, 2 cows, $57.50 each, down to $45. J. T. Molloy, choice cows, $50@67; sales at $35@47.50. Gould & Libby, 10 oxen, 1250 @1800 lbs, at 4½@7c.

Store Pigs.

Moderate supply, with small pigs $2.50@4; shotes, $5.50@8.

BOSTON PRODUCE MARKET.

Wholesale Prices.

Poultry, Fresh Killed.

Northern and Eastern—	
Chickens, choice roasting	18@20
Chickens, fair to good	14@16
Chickens, broilers, 2 lbs each, ℔ lb	15@16
Green ducks	15@16
Green geese	15@
Fowls, extra choice	15@
" fair to good	12@14
Pigeons, tame, choice, ℔ doz	1 50@
" com to good, ℔ doz	75@1 25
Squabs, ℔ doz	2 00@2 50
Western iced or frozen—	
Turkeys, com. to good	12½@15
" choice	20@21
" fancy spring	15@16
Broilers, good to choice	12½@14
Chickens, common to choice	10@14
Fowls, good to choice	10@14
Old Cocks	9½@10

Live Poultry.

Fowls ℔ lb	11@11½
Roosters ℔ lb	7@8
Broilers ℔ lb	11@11½

Butter.

NOTE—Assorted sizes quoted below include 20, 30, 50 lb. tubs only.

Creamery, extra—	
Vt. & N. H. assorted sizes	23@
Northern N. Y., assorted sizes	23@
Northern N. Y., large tubs	23@
Western, large ash tubs	22½@22¾
Western, asst. spruce tubs	23@
Creamery, northern firsts	21@22
Creamery, western firsts	21@22
Creamery, seconds	19@20
Creamery, eastern	19@22
Dairy, Vt., extra	21@
Dairy, N. Y., extra	20@
Dairy, N. Y. and Vt. firsts	18@19
Renovated	17@19
Boxes—	
Extra northern creamery	23½@24
Extra dairy	21@22
Common to good	18@20
Trunk butter in ½ or ¼-lb prints	
Extra northern creamery	23½@24
Extra northern dairy	22@
Common to good	18@20

Cheese

Vt. twins, new extra ℔ lb	12@12½
" firsts ℔ lb	10½@11½
" seconds ℔ lb	7@9
Sage cheese, ℔ lb	12½@13
New York twins new extra	12@12½
" " " " firsts	10½@11½
" " " " secouds	7@9
Ohio flats	10½@11½

Eggs.

Nearby and Cape fancy, ℔ doz	28@30
Eastern choice fresh	23@24
Eastern fair to good	19@21
Michigan fancy candled	22½@23
Vt. and N. H. choice fresh	23@24
Western fair to good	19@20
Western selected, fresh	21½@22
Western dirties	15@17
Refrigerator—April	20@21
" Summer	19@19½

Potatoes.

Hebron, ℔ bu	45@48
New York, round white	45@50
Aroostook Green Mountains	50@53
Sweet potatoes, yellow—Southern	1 50@1 75
Jersey double head	2 25@

Green Vegetables.

Beets, ℔ bu	50@60
Cabbage, native, ℔ 100	3 00@4 00
Carrots, ℔ bu	50@60
Lettuce, ℔ box	40@50
Celery, ℔ doz	60@1 00
Cucumbers, hothouse, ℔ box	6 00@8 00
Onions, Natives, ℔ bu	90@1 10
" W. Mass. ℔ bbl	2 00@2 50
" Spanish ℔ box	2 75@
Peppers ℔ box	75@
Egg plant, ℔ box	1 00@1 50
Parsley, ℔ bu	20@25
Radishes, ℔ box	35@40
Squash, ℔ crate	1 00@
" Marrow, ℔ ton	15 00@20 00
" Furban	25 00@
" Hubbard, ℔ ton	20 00@
String beans, native, ℔ bu	1 25@1 50
Hort. shell beans, ℔ bu	1 25@
Lima beans, ℔ box	1 25@1 50
Sieva beans, ℔ box	1 25@1 50
Green corn, native, ℔ bu	75@85
Spinach, native, ℔ box	15@25
Turnips, flat, ℔ box	50@65
Turnips, yellow, ℔ bbl	90@1 25
Tomatoes, native, ℔ box	60@1 25

Domestic Green Fruit.

Apples, Twenty-Ounce, ℔ bbl	1 75@2 00
" Gravenstein, ℔ obl	2 50@3 00
" common, green, ℔ bbl	1 00@1 25
" Snow and Wealthy	1 75@2 50
" Maine Harvey	2 00@2 25
" Pound Sweets	1 75@2 00
" Hubbard-ton ℔ bbl., No. 1	1 50@1 75
" Greenings	1 75@2 00
" King, ℔ bbl	2 00@2 50
" Pippins and Porters	1 25@1 75
" Juneating and Colverts	1 50@1 75
Pears, Bartlett, ℔ bu	1 50@2 00
" Secke', ℔ bu	1 50@2 50
" Anjou	1 25@1 50
" Bosc	2 00@
" Sheldon	75@1 50
Peaches, native, ℔ basket	35@75
" Michigan, ℔ bu. basket	1 00@1 50
Grapes, pony baskets	8@18
Muskmelons, ℔ crate	2 50@3 00

Hides and Pelts.

Steers and cows, all weights	6½@7
Bulls	6½@7
Hides, south, light green salted	8½@8¾
" " dry flint	13@14½
" " salted	9½@9¾
" buff, in west	9½@9¾
" " salted ℔ lb	7½@8¼
Calfskins, 5 to 12 lbs each	95@1 60
" over weights, each	1 75@2 20
Deacon and dairy skins	50@60
Lambskins each, country	35@50
Country Pelts, each	40@85

Dried Apples.

Evaporated, choice	6@7¾
Evaporated, prime	6¾@6¾
Sun-dried, as to quality	3@4½

Grass Seeds.

Timothy, ℔ bu., Western, choice	2 55@
" prime	2 10@2 25
Clover, ℔ lb	10½@11
Red Top, Western, ℔ 50 lb sack	3 00@3 50
" fancy recleaned, ℔ lb	9½@11½
Hungarian	1 25@1 40

Beans.

Pea marrow, choice, H. P	2 50@2 60
Pea screened	2 10@2 30
Pea seconds	1 75@2 00
Pea N. Y. and Vt., small, H. P	2 35@2 50
Pea foreign	2 25@2 40
Mediums, choice hand-picked	2 35@2 50
Mediums, screened	2 10@2 30
Mediums, foreign	2 25@2 40
Yellow eyes, extra	2 65@2 70
Yellow eyes, seconds	2 40@2 50
Red Kidney	2 90@3 10
Lima beans dried, ℔ lb	8@

Hay and Straw.

Hay, No. 1, ℔ ton	17 00@17 50
" " 2 "	14 00@16 00
" " 3 "	12 00@14 00
" fine choice	12 00@13 00
" clover mixed ton	12 00@13 00
" clover, ℔ ton	12 00@12 50
" swale, ℔ ton	9 00@10 00
Straw, prime rye	13 00@14 00
Straw, oat, per ton	8 50@ 9 50
Straw, tangled rye	11 00@

FLOUR AND GRAIN.

Flour.—The market quoted quiet.
Spring patents, $4 00@5 00.
Spring, clear and straight, $3.25@3.75.
Winter patents, $3 75@4 50.
Winter, clear and straight, $3 40@4 25.

Corn Meal.—The market is steady at $1 36@1 38 ℔ bag, and $2 95@3 00 ℔ bbl; granulated, $3 40@3 70 ℔ bbl.

Graham Flour.—Trade continues quiet, with the market quoted at $3 00@4 00 ℔ bbl.

Oat Meal.—Steady, $5 50@5 75 ℔ bbl. for rolled, and $5 90@6 15 for cut and ground.

Rye Flour.—The market is quoted at $3 00@3 50 ℔ bbl.

Corn.—Demand is quiet, with prices higher.
No. 2, yellow, spot, 72@72½c.
No. 3, yellow, 71@72c.

Oats.—Quiet but higher.
Clipped, fancy, spot, 40c.
No. 2 clipped, white, 38c.
No. 3 clipped, white, 37½c.

Millfeed.—The market is higher.
Winter wheat, bran sacks, $18 00.
Winter wheat, middling sacks, $22 00@25 00.
Spring wheat, bran sacks, $17 50.
Spring wheat, middling sacks, $18 00.
Cottonseed meal for shipment, $26 50.

Malt.—The market is steady with trade ruling dull.
State grades, 6-rowed, 67@75c.
State, 2-rowed, 63@68c.
Western grades, 70@76c.

Barley.—Quiet demand, with prices higher at 62@73c for No. 2 6-rowed State, and 48@65c for No. 2 2-rowed State. Feed barley, 52@67c.

Rye.—Quiet, $3.00@3.50 ℔ bbl, 68c ℔ bushel.

THE WOOL MARKET.

Unwashed fleece, fine, Michigan	19@
" " " Ohio	21@22
" " ¼-blood "	22@23
" " ⅜-blood "	22@23
" " ½-blood "	22@23
Fine delaine, Ohio	31½@32
" Michigan	28@
Washed fleece	26@30

FOAMING CREAM.—MRS. W. L., Franklin County, Mass.: There may be one of several causes for the cream swelling and foaming in the churn. The mixing of the cream from cows fresh in milk with those that are to calve in three months is not an infrequent cause, and such cream should not be mixed, but churned separately. Another cause may be the mixing of cream just taken from the pans with that which has become acid by long keeping. It is a good rule not to add any new cream more than twelve hours before the churning, and often twenty-four hours is a better interval, and then the whole should be well mixed together, that it may be of the same degree of acidity. But perhaps a more common cause than either of these is churning at the wrong temperature. There is no exact temperature at which to churn the cream. Some may churn readily at 60° or 62°, and another much quicker at 56° to 58°. The thicker the cream the more readily it comes to butter or butter granules at the higher temperature, and the less the chance of foaming. But when the temperature is below 56° it is well to warm the cream, not as they used to do when they they thought it was bewitched, by dropping a red-hot horseshoe in it, but by placing the churn or cream pots into a tub of warm water for a few minutes, or even by turning hot water into the cream, stirring it as the water is turned in. If the temperature is above 62° the cream may need to be cooled. There should be a thermometer in every milk-room, for the old lady that Dr. George B. Loring used to tell about, who knew when the milk was just right to make good cheese by putting her finger in it, has long since given up the business, and she has none left that can equal her.

CONCERNING BEES.

There is a fault often unknown and not suspected in the late swarms, which is that the queens which go out with them may not be fertile, and if they come out after the drones have been killed off they cannot lay fertile eggs, but only such as produce drones. She cannot be distinguished from a fertile queen, but the drone cells can be distinguished from worker cells by the rounded appearance of the cap over them. If only such are found destroy the queen at once, and either give the colony another queen or divide the bees that remain and the honey among other colonies, destroying the drone brood by uncapping it and shaking out the larva. If in cells of the worker-bee size, it may be useful to put in other hives next spring, but if in the regular cell of the drone bee, it is best to make wax of it, unless some may be saved to put in the frames of the best colonies that one may want to raise male bees from.

AGRICULTURAL EXPORTS OF ARGENTINA.

The agricultural exports of Argentina during the period from Jan. 1 to June 30, 1902, inclusive, show an increase over the same part of 1901 of 24,525 sheep and 9380 tons of frozen mutton, 10,727 tons of frozen beef, 2533 tons of jerked beef, 3,205,134 pounds of butter, 854 tons of linseed, and 11,033 tons of hay. But there was a decrease of 48,490 tons of wool, 173,290 tons of wheat and 26,740 tons of corn. The decrease in exports of live stock is largely due to the prohibition of live cattle from that country entering England. Those in wheat to the short crops and the home demand. But the sales in beef and beef products seem remarkable when we note that only what seems a few years ago we used to read that there they killed the cattle for their hides, and left the meat, or most of it, for the beasts and birds of prey. But, in fact, this country has developed rapidly, and perhaps more rapidly than any other part of South America during the past quarter of a century, and has now become a competitor of the United States and Canada in growing high-grade cattle and sheep. At some of the English sales of breeding they have paid high prices to get the best for that country.

SHREDDED FODDER.

Many tests have shown that the shredded corn fodder needs after shredding to be put where it will be kept dry. All attempts to stack it have given unfavorable results. It has heated and spoiled, and those who tried it in this way have been ready to condemn it. This is not so much because it does not pack closely in the stack, for the bulk of the long fodder seems to be reduced by the shredding process, but it is so fine that the rain penetrates easily when dry, and when wet it swells and becomes so compact that the air does not enter it to dry it out. The long fodder with its flinty casing (literally flinty because it is largely silicate of potash on the outside) does not absorb water excepting at the ends or places where the stalk is broken, and then it does not pass farther than to the joints each side. Those who try shredding fodder should do so when it is perfectly dry, and then put it where it will keep dry. If not so, the porous centre of the stalk absorbs moisture, then swells so as to refuse the admission of air to dry it out, and then the next thing is heating or fermentation, to be quickly followed by mould, and a food that is unfit for cattle and especially for milch cows, and dangerous to the health of young animals.

THE LATE GRASS CROP.

Seldom have we seen so much grass in the pastures and meadows the last week in September as we note this year, and there are not many places where it has been injured by the frost yet. As the whole season has been moist enough to give a fair amount of green food all through the summer, there seems little fear that the cows will shrink much in milk until they are put in the stables on dry fodder. In some of the mowing fields it has grown so rank that many have been cutting second or third crops, and others appear to be in doubt whether to cut in October or to let the grass die down "for the enrichment of the soil." We would never debate that one moment for ourselves. We would cut it and take it away if there was not crop enough to pay for the labor. A crop of grass left to die down in the fall and lie on the surface all winter will enrich the soil, and it would be enriched by spreading a covering of woolen blankets over it all winter or covering it with boards, but either would tend to kill out the best of the English grasses of which we sow the seed, and to leave the ground rich to grow the coarse wild grasses. The old dead grass that has been on all winter is in the way next summer in the mowing, and it rakes up among the hay, making the quality poorer. But do not leave the cutting of it so late that there will not be something to start and protect the roots during the winter. Just enough protection for warmth, and not enough to smother.

A Superintendent of Tenements Needed.

Dr. Edward Everett Hale never writes on a matter of philanthropic interest without saying something that needs to be said, and saying it forcefully and well. When he remarks, therefore, as he has done in a recent issue of the Christian Register, that Boston's best interests demand the appointment of a superintendent of tenement houses, it becomes the manifest duty of other writers to pass the word along.

No observer of modern tenement houses but must have noted that these buildings when first put up are in many ways ideal. Often tastefully constructed of brick they are without attractive to look at, and within admirable in arrangement. Bathrooms are a commonplace in such structures, and modern plumbing also may almost always be found. The law demands ese things, and the building inspector sees to it that the exactions determined by statute are fulfilled.

When the poor have once moved in, however, things are often quite different. The bathtub is not infrequently used for the family washing, and the room itself for a storecloset. No end of refuse and foul matter is poured down the kitchen sink pipes, and the halls are dark and ill-cared-for, in spite of the fact that adequate lighting provision was carefully supplied by the architect and builder. In a word, the poor, if no one oversees their mode of life, will not improve, even in the most model tenements, the facilities provided for good and hygienic living.

Dr. Hale has pointed out that the late John L. Emmons, having built on his land in Ohio place "the best apartment houses in Boston," went a step farther and looked with greatest possible care after the administration of his property." The tenements were under the watchful oversight of one of the best men that ever lived. Working on the principle that we must overcome evil with good, Mr. Emmons had collected the capital necessary, had studied the plans and watched over the building, and he then cared for each house every day with the same personal attention which the best house keeper who reads these lines gives to her own home. . . . The time has long passed when lovers of mankind like Mr. Emmons have to persuade men to build such houses. But the city of Boston still needs to have a greater interest in the purity and methods with which "model" tenements are conducted.

With effective irony Dr. Hale points out that every passenger ship that sails from Boston on a ten days' voyage receives more careful health supervision than do hundreds of our city tenement homes. The Board of Health is in its way very good and useful, of course, but something more direct and constant than its supervision is needed. A whole commission might profitably be engaged in seeing that life in the tenements comes far nearer than it now is to the realization of decent, not to say ideal, conditions.

Even one man, and he a superintendent of tenement houses, would, however, serve to stimulate in the property owners a proper sense of what is fitting in "model" tenements. And certainly constant admonitions from that important person, the landlord, would soon work to the betterment of the unhealthful and untidy state of things that now prevails. Eventually, too, the pride of the people would come to the support of the officer of the law. But the appointment of an officer is certainly the first step.

How to Fill the Silo.

The season has been a hard one on corn in New York, and we have the poorest crop in years. There has not been warm weather enough to cause it to grow, and only the small State corn has formed any ears yet. Some of the late kinds have not even tasselled out, and it is in all stages, from four to ten feet high, without a "silk" showing. In this section frost may come any night now, and which is better, to cut the very green corn or wait, is an undecided question. Some think the corn is so immature that the silage will be sour and of small feeding value, while others think the damage by frost is greater than that by souring. By leaving it for two weeks it will gain much in feeding value, and will if frosted make fair silage, so I shall take the chance and leave it.

I believe the quality of the silage is governed by the condition of the corn when put in more than by the cutting or tramping. Green, fresh-cut corn will be sour and free from mould, while overripe, dry corn or that which has been sun dried will firefang and dry mould like a horse-manure pile. If possible, it should be cut with the ears glazing and lower leaves turning. It will be improved if cut greener than this, by cutting with a corn harvester, and left in bound bundles to lie long enough to wilt. The big bundles are not affected except on the outside by the sun, and remain green inside, but will lose considerable moisture, making them less liable to "sour" and much lighter to handle.

If overripe it will be best if put in after a heavy rain. While its natural juice seems to ferment, rain water does no harm. Should the machine break and the corn get too dry it is better to wait for a shower. Some seem to get good results from wetting the silage, but it takes more water than most men can spare time to put on. I believe in cutting it very short, for the reason that the finer it is the closer it will pack, the more complete will be the exclusion of the air and the less the waste.

When one has plenty of room in the silo I would not tread in the contents. The greatest loss is usually around the sides, where the men stand the most. The difficulty is, the packing is uneven and the hard spots mould. When nearly full you have a pressure of seventy-five to one hundred tons of green corn, and a man's weight is trivial in comparison. Let it pack itself until near the top, but the contents should be well mixed, or rather not allowed to unmix. The leaves floating to one side make soft spots and the ears roll down to the side, making hard ones. To prevent this make a cloth spout of large bran sacks, sewing in a barrel hoop on the inside, where the bags come together, to keep it extended. Hang it to a frame hung across the top of the silo so the cut corn will drop into the open mouth. One man can swing the bottom around ahead of him and fill the corners, sides and middle as he pleases. When the corn fills up to it take off one bag to shorten it. The corn and leaves all fall together. After two years' trial I keep only one man in the silo.

If there is any question in regard to the silo being airtight or the doors not fitting well, it is a good plan to put tarred paper against the spots and let the corn fill in, holding it in place.

If the silo is too large, or a portion is wanted for next summer's feeding, nail a strip on two sides and set inch boards on edge against the strips, one above the other, as you fill. The corn on both sides holds the partition in place and one side can be fed at a time, when wanted.

It may cost a trifle more to have the corn cut with a binder or corn harvester, but the coat is more than saved in the cost of handling. Two men can pitch on more corn that is bound than four can picking up loose corn, and there is much less danger of getting in stone. If either of the two above machines cannot be obtained try a common reaper. Cut only one row at a time, and drive so the corn will be out at the end of the cutting bar, so the arms will not tangle so badly, and have a man grasp hold of the top and stand still when the bundle is large enough. The machine is drawn out from under it and the corn falls down straight. I have cut corn twelve feet high and so heavy the arms were not strong enough to rake it off in this way.

Set the machine the day before and be all ready to start in the morning. This seems simple and unnecessary advice, but I have seen four teams and seven men wait at the farmer's expense until 10 A. M. for the machine to be got in place. At $3 per hour that is expensive. Set the machine on the ground, not up on a platform. It costs money to raise all that corn up several feet, and the expense is useless. Anything will slide down hill. Dig a trench next to the machine for the wagon wheels to drop down in, and tilt the load so it will almost unload itself. The men will be tired enough after you have made it as easy as you can. The platform should also slope toward the machine, which should be fitted with a traveling feed table. A boy can just touch the bundle here and straighten a top there and put through the corn faster with this "self-feeder" than two men can without it. Some men cut and take out all of the bands, but I have never bothered to do that. The heat of the silage rots the twine and we have never had a bit of trouble from leaving them in.

We find our farmer's handy wagon, which has wheels only two feet in diameter and six inches wide, a labor saver in drawing corn. Its broad platform requires no loader and holds all a team can draw without lifting the corn up high. We have filled our silo many times and tried many kinds of covers, but find nothing better, cheaper or causing less waste than to do nothing to it when filled. The next best is to rake in a peck of oats, sprinkle well and let them grow in six inches of chaff. When once it has formed a crust keep off from it until you begin feeding, which may be the next morning after filling, or next summer.—New York Tribune.

The Management of Raspberries and Blackberries.

A correspondent asks the Maine Experiment Station for information as to the time for pruning and transplanting raspberries and blackberries. In reply the following suggestions were made:

"The ideal treatment for raspberries and blackberries is to pinch them back at intervals during the summer and thus secure strong, sturdy bushes 3½ to 4 feet high, with laterals 1 to 1½ feet long, rather than to practice severe heading back after the plants have become long and 'leggy.' If, however, as is frequently the case even in the best managed gardens, the plants are at this season making vigorous growth which may not mature, they should at once be cut back to the desired height and the canes will harden before cold weather. Many prefer to cut back the bushes in the spring, after the extent of winter-killing is determined. Thinning the canes, which should always be practiced, may be done at any time during the season. In general, one-half or more of the young canes which appear should be cut out.

"Blackberry and raspberry bushes may be transplanted this fall if the work is done immediately, but better results are usually obtained from spring planting. Currants, on the other hand, have given rather better results from fall setting.—W. M. M."

Will oil actually serve as fuel to run an ocean steamship? The American liner Kensington is to try the experiment. If it proves successful, the next problem will be to keep the minds of passengers from dwelling too fondly on what they have heard about kerosene stoves, or the unfortunate experiences of Bridget as intermediary between real stoves and oil cans.

Nobody will question the right of man to paddle his own canoe as far over the ocean as his own inclination may prompt him. At the same time, it is just as well that the long trip taken by the two Cliftondale canoeists the other day comes at the end of the season, and is, therefore, unlikely to tempt the less experienced to similar voyages of adventure.

It is not difficult to imagine that some of the younger clerks in the National Treasury Department will find occasion to wax indignant over Secretary Shaw's recent enactment. But to ordinarily well-seasoned humanity the Treasury Department will seem a very excellent place to discourage the theory that every young man must sow his wild oats; at all events, it is just as well to have the period well over before the sower takes a position in which he handles other people's money.

PAGE

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is over, and now you can have your fence shipped the day your order is received. Try us on a "Rush Order," and put it up this Fall.

PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

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ONE CENT A WORD

Farmers' Want Department is established to allow the sale and exchange of Stock, Seeds, Fruits, etc., also Help or Situation Wanted. There is a charge of one cent per word only, including name, address or initials. No Display. Cash to accompany the order.

HOLSTEIN-FRIESIANS. Best cows in New England. Pietertje, DeKol, Hengerveld strains. Best butter producers. Young bulls and bull calves only. Send for pedigrees. Prices reasonable. Woodside Farm, Princeton, Worcester County, Massachusetts. JOHN B. MARCOU.

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RATS—Drive away alive forever. No poison. No traps. No cats. Our new discovery sends them off like magic; they never come back; 10c postpaid. Free with every order True Receipt How to Make Hens Lay More Eggs. Also keep your fowls healthy. GALLATIN & CO., Dept. 2, York, Pa.

WOODLAND Shorthorns, number 150 head. Bulls, cows and heifers of all ages for sale at all times. W. I. WOOD, Williamsport, O.

20 HEAD Stallions—Shires, Percherons, Belgians, Clydes and one Coach horse. A. LATIMER WILSON, Creston, Ia.

SHORTHORNS, Poland Chinas, extra fine Scotch topped bulls ready for service at bargain prices. D. J. GREEN, Renrock, Noble Co., O.

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Our Homes.

The Workbox.

LADIES' CABLE-STITCH SWEATER.

Materials: One pound Lion-brand knitting worsted, 3 steel needles No. 14, 1 pair bone needles No. 4. With the steel needles cast on 120 stitches for back, knit 2 plain 2 purl for 3 inches to form waistband. With the bone needle start the cable.

To make cable stitch:

1st row—Three purl, 10 plain.

2d row—Three plain, 10 purl.

3d row—Three purl, 10 plain.

Continue this way till you have 10 rows. Then 3 purl, slip 5 stitches off on to a hairpin, knit next 5 plain, put back 5 (off hairpin) and knit plain. This forms the twist.

Make 9 cables across the back.

Work 13 twists up to neck, bind off the 3 centre cables for neck, work 3 cables on either side of neck, 3 twists for shoulder.

Cast on 26 stitches for front, and knit to same length as back; finish with band, 2 plain, 2 purl alternately on the steel needles.

Knit same on other side of front, sew up 9 twists under the arms, leaving armhole.

Sleeve: Begin with 99 stitches, knit 2 plain, 2 purl alternately on the steel needles for cuff.

With bone needles 3 purl, 8 plain for cable stitch, and twist every tenth row; make 5 twists.

In sixth twist increase 2 stitches in this way, slip 4, increase 1, put back, increase 1, 3 plain, this gives you 10 stitches instead of 8.

Make 8 more twists for length of sleeve, bind off, sew up and sew in armhole.

Pick up all stitches around neck, using bone needles, 2 plain, 2 purl for a few rows. Now use steel needles, 2 plain, 2 purl alternately for four to five inches for neckband.

EVA M. NILES.

Fern Dish.

Any one of the low, oval or circular dishes found in profusion at the Japanese shops or counters makes a pretty fern dish. Four or five of the small growing ferns or foliage plants that can be had at many florists for five cents apiece, will group together prettily to fill the dish. The packing needs no special skill. Each little plant is slipped from its pot, its mold of earth loosened, and fitted in with its fellows in the dish. If a glass bell, such as used to cover wax flowers, chances to be still around the house, the fern will thrive and keep longer by being covered with it, care being taken that sufficient moisture is provided. In city homes gas and furnace heat seem to be fatal to most plants, few surviving a long dose of the gas, and furnace heat seems to be fatal to most.—New York Post.

Protection of the Child's Eyes.

Nowhere is the comparison between an ounce of prevention and a pound of cure more applicable than in the care of the eyes; for the neglect of seemingly trivial affections, perfectly curable in their beginnings, may lead in an incredibly short time to permanent impairment of vision, or even to total blindness.

The care of the eyes should begin with the moment of birth. The new baby's eyes should be the first part to receive attention. They should be wiped carefully with a piece of absorbent cotton wet with a warm solution of boric acid, of a strength of about sixty grains in four ounces of distilled water. After the lids have been thus carefully washed on the outside, they should be gently separated and some of the solution dropped into the eyes.

In washing the eyes one should be careful never to dip again in the solution a piece of cotton which has once been used. A fresh piece must be taken each time the eyes are wiped.

The baby's eyes must be protected from the light. Its crib must be placed where the eyes are not exposed to the full light from a window, and the carriage should have a shade raised only about a foot above the baby's head.

Children often suffer from inflammation of the edges of the lids, which are red and scaly, and the lashes fall out and break off. This may betoken a general scrofulous condition, or it may depend upon some defect in the sight which causes eye-strain, or it may be only a local trouble. If it is only a local trouble, a few applications of boric acid ointment at bedtime will generally effect a cure.

Conjunctivitis, or inflammation of the membrane covering the globe of the eye, may be due to a cold, to the action of bright sunlight or reflection from water or from snow, or to eye-strain from some visual imperfection. Usually the boric acid solution will give relief here, even when the trouble cannot be permanently cured until proper glasses are worn.

Another painful consequence of eye-strain is a succession of sties. When a child suffers frequently from sties, from sore lids, or from conjunctivitis, the sight should be tested.

Much harm is often done to the eyes, as well as to the general health, by too long application to books, either school or story-books. Three hours of looking at print by daylight, and one hour in the evening, should not be exceeded by any child under fourteen, for that is as much as his eyes, even if their vision is perfectly normal, will stand without injury.—Youth's Companion.

Fig Pickles.

These are unusual, and especially delicious. Weigh pulled figs and take three-quarters of a pound of sugar to every pound of fruit. Make a syrup of the sugar and a cupful of water to each pound; boil and skim for five minutes, and then drop the figs in and simmer till a straw will penetrate them. Put them in jars in layers with a few cloves, bits of whole cinnamon, and a very little mace between them, and cover with syrup, but do not close the cans. For three mornings pour off the syrup without moving the fruit, re-heat it to the boiling point, and put it back; the third morning measure it, and allow one cupful of vinegar to every three cupfuls of syrup; boil it up thoroughly, pour at once over the figs, and close the cans.—Harper's Bazar.

When Your Joints Are Stiff

and muscles sore from cold or rheumatism, when you slip and sprain a joint, strain your side or bruise yourself, Perry Davis' Painkiller will take out the soreness and fix you right in a jiffy. Always have it with you, and use it freely. USE

Painkiller

"Modified Milk."

"Modified milk" is cow's milk which has been made as nearly as possible like human milk. The chief constitutent elements of milk are fat, sugar and proteine, which is muscle food. Cow's milk contains over twice as much proteine as mother's milk and of a different character, and about half the amount of sugar. The baby calf demnads different nutriment from the baby human, naturally, as he grows four times as fast. Modified milk is milk which has been made to correspond as exactly as possible to the baby's natural food, and is, therefore, a different thing from sterilized milk, with which some people confound it. Properly sterilized milk is germless, but the baby may remain stationary in weight, grow thin, or even become ill while fed with it, because it is not suited to his needs. The medical profession does not claim that it has yet attained perfection in modified milk, but it has learned how to adapt milk very nearly to the baby's needs and digestive organs.

In the first place, the milk used should be "mixed" milk, that is, milk from several cows, as the milk of any one cow changes from day to day, while that of the herd maintains a balance. Without going into chemical proportions and percentages sufficient to say that by taking the top fourteen or fifteen ounces of a quart of milk which has stood overnight, until the cream has risen, diluting this cream with boiled water or gruel and adding a little sugar, the nearest combination of human milk is produced. The formula for dilution, showing the proportion of water or gruel to be used, varies according to the age of the child, and should be secured from a competent physician. The only way to tell whether the mixture is agreeing with the child or not is by weighing the baby every two or three days. If he is not gaining in weight something is the matter with his food. The most usual error in feeding is beginning at birth with too strong a milk mixture. The cream used should be raised at home, as cream purchased as such is often older than the milk with which it is mixed. In preparing the mixture, for which a certain number of ounces of cream or milk are called for, a one-ounce dipper made for this particular purpose is most useful. The latest preference in the medical profession as to a diluent is one of the digested gruels, with boiled water as second choice. There should be slight changes now and then—from wheat to oatmeal gruel, and from that to barley, with a teaspoonful of beef juice or orange juice once in a while. The reason is that the nursing baby gets a constant, slight variation in his milk, owing to the varying diet of his mother.

The children of the tenement house poor in New York are often fed on condensed milk in summer, owing to the lack of ice, or even all the year around, on account of the smaller expense. Babies will live on condensed milk, but a well-known specialist in children's diseases has declared that, of thousands of children examined by him who had been fed exclusively on condensed milk or proprietary foods, he had never seen one which at the end of three or four months did not show signs of malnutrition. They are undersized, rachitic, and have poorly developed flabby muscles.

"Considering the desirability of producing good citizens physically as well as mentally, and the fact that two-thirds of all children born die before attaining their third year," said a physician, "it would seem as if the establishment of municipal milk depots on a large scale, with adequate instruction to all mothers who could be reached, would be at least as useful and logical as hospitals supported from public funds."

The same specialist, in speaking of this project, says:

"Our work, while covering a comparatively small field, shows that the large mortality of summer diarrhœas in our large cities is preventable. The prevention rests with the people—the municipal government. If one-hundredth part of the expense and energy exerted by the rival political parties in New York city in a single campaign were devoted to the interests of the sick infant poor, how different would be my story! These infants cannot be moved to the country except in a ridiculously small number. They must live or die in their tenement homes. Hospitals cannot care for them, and but little advantage could be gained if this were possible. In summer diarrhœa there must be isolation, not aggregation. I can treat with infinitely better success one hundred cases of summer diarrhœa in the average tenement, with the average well-meaning tenement mother, than in the best-equipped hospital, with expert nursing and feeding."—Tribune.

Skill in Washing.

Washing is an art, and needs to be learned as well as anything else. Everybody can wash after a fashion, but not everybody can so turn out handkerchiefs, silk and lace blouses and ties, and other washable belongings that a professional laundress would not scorn to own them as her work. It is emphatically an accomplishment worth learning, if only for the sake of reducing one's laundry bill.

Dissolved soap is a necessity, and is made by finely shredding a quarter of a pound of yellow soap into one quuart of water, and boiling it till dissolved. A quantity can be made at one time and kept for use when required. When washing flannel and woolen goods never rub or twist them. Squeeze them about in a tepid lather, to which (for white flannels) a little ammonia is added. Wash thoroughly on both sides, rinse carefully, shake and dry in the air, not in the sun. Iron when nearly dry with a cool iron.

White silk blouses, ties and handkerchiefs are all washed in the same way. First steep them in cold water, with a little borax added, wash in a lather of warm water and dissolved soap, rinse well, pass through slightly blued water, fold in a clean cloth, pass through the wringer and iron on the wrong side when nearly dry with a cool iron. A little menthalated spirit added to the last rinsing water gives a desirable gloss. A dessert spoonful to a pint of water is ample. For colored silk, do not steep it in borax water or pass it through blued water. If you fear the color will run, steep it in salt and water for a short time, but be careful to rinse all the salt out before washing.—London Express.

Clothes Moths and Others.

There are four stages in the life of the moth,—the egg, the larva, the pupa, the moth. The moth generally deposits its eggs where the larva may find suitable food—that is, in furs, feathers and wool materials.

The larva emerges from the egg in the form of a worm, which immediately begins to feed upon its surroundings. It makes a case for itself with particles of the materials upon which it feeds, and moves about in this. If the article in which the eggs were deposited is soiled, the development of the larva is rapid, and as a consequence the destruction of the material is greater than it would have been had the article been clean.

When the larva reaches full growth it fastens itself to some substance, generally the article on which it has been feeding. In about three weeks the moth emerges from the case, and soon begins depositing eggs for a new generation. Now, although the moth does not directly injure fabrics, it supplies the eggs from which the destructive larvæ are hatched. When moths are seen flying about, there is every reason to suspect that the eggs are being deposited.

The necessary precautions are first to kill all moths seen, and to shake, brush and air all articles frequently. Thoroughly brush and beat all upholstered furniture. Before putting away woolens, furs or feathers see that they are as clean as possible. Wearing apparel should have all the pockets turned inside out, all the seams and hems brushed, and then be well shaken and aired. Clean all soiled places with benzine or turpentine. If there is any danger of eggs having been deposited in furs, carefully comb the furs, using a steel comb. Pin the articles in cotton bags. Put them in boxes or closets that have been made insect and germ free by carbolic acid. Put bits of cotton, wet with oil of cedar, in the boxes or closets, or cedar chips or camphor may be used.

From early spring until late fall, carpets, upholstered furniture and woolen garments hanging in closets in constant use should be brushed, beaten and aired frequently.

Should moths get into furniture, carpets or any articles where it is difficult to reach the larvæ, the surest and cleanest method of eradicating them is to saturate the articles with naphtha, always keeping in mind that this must be done away from fire and artificial light, and with windows wide open. If the infested articles can be taken out on a piazza, the naphtha may be applied freely.

Under the names silver moth and silver fish, and also as bristletail, silver witch, etc., is known an insect that is destructive to paper, books, starched articles and some kinds of food. The bristletail is about one-third of an inch long, tapering from the head to the end of the body, which ends in three threadlike caudal appendages. It is silvery white, with a tinge of yellow in the legs and abdomen. It finds its way to every part of the house, even under the wall paper, where it feeds on the paste. The remedies for this pest are plenty of light and air, frequent brushings of every part of the room, insect powder injected into crevices and sprayed on walls, floors and shelves. Rooms infested with these pests may be fumigated with sulphur, or have a thorough treatment with naphtha or carbolic acid.

Use the same remedies for the springtail and the book-louse, should they at any time appear in any part of the house.—Ladies' Home Journal.

Domestic Hints.

CAPON SALAD.

Have some cold, roasted capon cut into small, thin slices. Lay in a dish and season with salt, pepper, oil and vinegar. Over the spices put sliced cucumbers and radishes; dress these with oil, vinegar, pepper and salt. Put in another layer of the capon, and so on till the dish is full. Heap it a bit in the centre, skim it over lightly with mayonnaise, dot the mayonnaise with sliced truffles and send to table.

BAKED MUSHROOMS.

Peel and remove the stems from some large, perfect, cup-shaped mushrooms. Lay them in a baking pan close together, without crowding, so that they will remain upright. Fill the caps with chopped mushrooms seasoned with pepper and salt and mixed with melted butter. Take up when done on slices of soft, thin buttered toast, and serve in this way, or pour a little cream over them when serving.

CURRANT JELLY FRITTERS AND COLD DUCK

Cut slices of bread and spread thickly with currant jelly; put two together, press gently, but do not let the jelly squeeze out; cut them with a fancy cutter; dip in batter and fry quickly in hot lard. Pile slices of cold duck neatly in the centre of a platter and lay the fritters around in a circle.

SHRIMP OMELET.

Prepare the shrimp and stew in a little butter for five minutes. Make an omelet with six or eight eggs and one-half a cup of cream; season with one spoonful of fine chopped parsley, salt and pepper. When done lay the shrimp on and fold over. Garnish with parsley.

EGG OMELETTE.

Place the whites and yolks of eggs in separate dishes. Beat the yolks very light, and for each yolk add one teaspoon cream. Turn yolks into hot buttered pans. Beat whites to a stiff froth and spread on the top of yolks. Set it back from the hottest part of the stove and let it stand three minutes. Cut in halves and fold together.

MINCED OYSTERS.

Chop twelve oysters very fine. Add two beaten yolks of eggs, a cup of bread crumbs, salt and pepper. Drop this batter in hot fat by the tablespoon, and fry a delicate brown. Remove to a piece of brown paper to drain off the grease. Serve hot.

Hints to Housekeepers.

If the white woolen shawl has become soiled, dip it into a bath of cornmeal and rub it thoroughly.

One-half cupful of sweet cream is added by certain New England housewives to the baked beans pot about a half hour before it is taken from the oven.

Two or three tablespoonfuls of strong but delicately flavored tea are said to enhance the delights of apple pie.

Preserved shredded pineapple, peaches cut in dice and preserved cherries with the pits removed make a toothsome combination for a fruit ice. Make a custard of one quart of cream, the yolks of six eggs and one and one-half cupfuls of sugar. When it is cold turn the custard into a freezer and turn the dasher until it is about half frozen. Then add the fruit and pack. Let it stand two or three hours.

To make pistachio ice cream pound and blanch one-quarter pound each of pistachio nuts and almonds and pound them together in a little water until they are thoroughly crushed. Make a custard of one quart of rich cream, three-quarters of a pound of sugar, the yolks of eight eggs and one teaspoonful of vanilla. Remove it from the fire, add the nuts, and when it is cold press the mixture through a sieve, and freeze.

There is a growing tendency among cooks who think for themselves to use cucumbers in chicken, capon and fish salads. In almost every case they are eminently satisfactory so used. Lettuce or celery or radishes may be used, too, in cases where a meat is used.

Strong and vigorous people may bathe early in the morning on an empty stomach. The young and delicate should bathe three hours after a meal. The best time is two or three hours after breakfast. Persons subject to attacks of giddiness and faintness, and those who have palpitation and other sense of discomfort at the heart, should consult their physician before bathing. After being in the water, a considerable friction ought always to be used, enough to bring the blood to the surface of the body. If any chill is felt, take immediately a warm sling, glass of wine, or two or three grains of quinine.

To absorb the noxious effluvia, etc., in a sick-room, place two or three good-sized onions, cut in halves, on a plate on the floor. Change them every three hours.

To disinfect clothing and towels from cholera or fever patients, throw them into a tub of water, in which has been dissolved one ounce of permanganate of potash to every three gallons of water. Boil the clothes as soon as removed from this solution.

Fashion Notes.

*** Some of the satin-finished faille silks are like velvet to the touch.

*** The tendency most evident in all the styles for the coming season is still towards the svelt and clinging effects of past years, with simpler outlines, less elaborate decoration, and a natural reaction in the matter of cutting up yards and yards of expensive material into frills, fripperies and furbelows.

*** Wholesale buyers report that there is very little that is absolutely new among raglan, ulster and Newmarket cloths for the fall and winter. Covert cloths of fine Saxony wool mixtures in combinations of brown and ecru, gray and green blue-grays and brownish modes and tans, have been brought out, also small check patterns with fine nap effects. These designs are in English style, and have already found favor with fashionable wrap designers. Under the name of "worsted cloths" are fabrics which have a cloth-like appearance, and these appear in vigoureux mixtures. Diagonal cheviots are also represented in the collection of raglan cloths. The finely ribbed covert cloths, made of soft wool yarn, resemble the stylish tricottines that were fashionable two or three years ago.

*** Unless the long, enveloping wrap now so popular is of the very best material, well cut, and carefully fitted and finished, it is the least attractive of all wraps. It also has its disadvantages, for unless it is formed of light-weight material, and cut up the back of the skirt to the waist in Newmarket fashion, to allow its wearer to hold her dress skirt when walking, it is too cumbersome and heavy for comfort, even in very cold weather. Less elaborate and less expensive Newmarkets are made of finely checked Scotch tweed, the fronts double-breasted, and fastened with mother-of-pearl buttons that reflect the shades in the checked wool.

*** The new French felts are soft and velvet-like in appearance, especially the pure white models, which will be popular for demi-dress wear. The deeper-colored hats are made in many different ways. They are chiefly trimmed with velvet and feathers, with additions of very handsome velvet flowers and foliage. Then the sole trimming consists of a large Alsatian bow set directly on the top of the hat, the long, wide loops of satin or velvet ribbon reaching well over the brim. In the centre of the bow is placed a quaintly shaped gem-set buckle. With varying fashions in millinery, the arrangement of the hair undergoes certain modifications. Greek knots are one of the fancies of the moment in Paris—this style being used when the broad, low-crowned Devonshire hat is worn, with plumes that droop from the brim on the left side and from the curved edge on the right.

*** A handsome French costume of beautiful shade of pale amethyst cloth is finished with rows of fine silver cord laid upon strappings of the fabric. The skirt just clears the ground all around, is closed at the back by underfolded box-plaits, and opens at the left side of the front. The front breadth is devoid of trimming, but the vertical bands (outlined with silver cord at the edge—which at each side extend from waist to hem) define the graceful shape of the breadth. The front of the bodice opens over a vest of cream-white cloth, embroidered with amethyst silk in various shades and fine silver threads. The back of the bodice about the shoulders is effectively treated with interlaced strappings of the braid-covered cloth.

*** The flat silk gimps and plain and fancy mohair galloons, which were so extensively used on spring tailor costumes of silk or cloth, will remain a favorite trimming for stylish walking and visiting dresses. Many of the camel's hair, faced cloth, Venetians and other wool suits from Paris that are now being duplicated here are finished in simple tailor style, but with a departure in the form of these braids of graduated width as decorations for skirt and jacket. Very often there is a fine cloth vest of pale chamois or biscuit color, striped vertically with the narrow gimp, and the deep cuffs that finish the sleeves are also made of the light cloth and trimmed to match.

*** City merchants have filled many of their shelves with zibeline. As most women know, this material has a soft, hairy surface—not dull nor yet glossy, pleasant alike to the eye and the touch. It is seen in a very wide range of colors, among which green, several handsome shades of brown and blue and two deep red dyes are prominent. Panne zibeline is the newest weave of this style of costume fabric.

*** A new Russian walking coat, called the "Czarina," fits the figure closely. The skirt below the waist is almost equally close fitting, and except for the costly buttons and more or less silk stitching at all the edges, it is devoid of trimming.

*** Fur will appear on nearly every article of dress sent from Paris, from Polish boots for winter driving to headwear of various kinds, decorated or made wholly of fur. As for feathers, they will be used in every possible manner, especially long ostrich plumes, full, fluffy tips, crests, marabout bands, quills, wings, aigrettes and breast feathers. Feather turbans matching collarettes and band trimmings are made of the breast plumage of the small, brilliantly feathered birds from Trinidad. On travelling and walking hats fewer birds and more of their feathers will be worn.

*** The designs for dress waists are, apparently, limitless. The model with vest buttoned on either side of the corsage, the ample Louis XIV. waistcoat, the yoke waist with its softly knotted sash, the Greek bodice draped with its finish of a pointed girdle or costly gem-set chatelaine, the corsage *a la militaire*, with its gold gimp, buttoned strappings and brandebourgs, the quaint religieuse waist, with its simple folds crossing the chest, the bodice *a la vierge*, half low and filled with a modest Gretchen guimpe of lace or chiffon, the jaunty cutaway with its natty revers and side pockets, will all be in good taste this winter.

*** Fur jackets and coats will appear in a number of new designs. Some are very short, some are quite as long as the skirt of the walking costume, others again are in the very fashionable Louis styles of three-quarter length,—in fact, they follow very closely the models presented among the latest French and English cloth cloaks and coats.

*** The majority of new autumn costumes for young girls are made in some form or other of coat or jacket, and this calls for some description of the waist to wear beneath. The shirt waist is still found to be the prettiest and most comfortable for this purpose. Fabrics for these waists for autumn use include some attractive American-woven shirt-waist silk flannels, which are worthy of particular mention. These fabrics combine the warmth and utility of a light French flannel, with the surface of a lustrous silk. For the use for which they are designed, they are really superior to either a taffeta, a satin or a peau de soie, because they will outwear them all. The silk flannels appear in very pretty colorings, and they are admirable for tea-gowns, children's dresses, sofa cushions, and durable flounced petticoats for cold-weather wear.

*** As women grow older, they are very often able to wear colors which in their youth they found unbecoming. Green, for instance, may be unsuitable in early life, but later certain shades of this dye may be used to advantage. To a girl of twenty, black is sometimes strikingly becoming, but much less so to older women, unless cream silk, satin, lace or net is introduced.

*** In seasons past, many women who attended the regular openings of the various importing houses ruthlessly fingered the choicest toilettes and costumes on exhibition. By the time the day was done, many beautiful gowns were not only pulled out of nearly every trace of their original position, but not infrequently bore the trace of fingermarks. This brought forth an emphatic protest from the owners of the damaged goods. That the severe reprimand the "model handlers" received had a good effect was observed recently in this city. The temptation to handle the goods was almost to great to be resisted by many of those who walked past the array of robes arranged upon the various forms, but the placard "Hands off" was sufficient to keep them from anything further than a careful scrutiny of them. —New York Evening Post.

——The following qualifications are required of every soldier selected as a recruit: He must not be under twenty or over twenty-five years old. He must be strong enough to lift a one hundred-pound weight with both hands to a position level with his chest. He must be five feet eight inches in height, and able to run a course of seven miles in an hour. He must also be of good character.

The World Beautiful.

Lilian Whiting in Boston Budget.

"The Maid have but to follow this Star in peace. . . . The Divine action marvelously adjusts all things. The order of God sends each moment the appropriate instrument for its work; and the soul, enlightened by faith, finds all things good, desiring neither more nor less than she possesses. . . . Divine grace alone can imprint that supernatural character which adapts itself so marvelously to each individual nature. It is not learned from books; it is a true spirit of prophecy and the effect of intimate revelation; it is the teaching of the Holy Spirit. All the events of the world can only work the good of souls perfectly submissive to the divine will of God. Every step under His guidance is a victory."

One may tread,—not the "whole round of creation," as Browning phrases it, but a minor segment of it, at least, and come back with added and more profound conviction that happiness is a condition of the spirit; that "the soul is ceaselessly joyful"; that the incidents and accidents of the outward life cannot mar nor lessen that sense of higher peace and joy and harmony which is the atmosphere of any true spiritual life. One may recognize and affirm this truth by spiritual intuition, and he may then be led through many phases of actual tests in actual life; he may, for a time, lose his hold on it and come to say that happiness is a thing that depends on so many causes outside one's own control; that illness, death, loss of friends, adverse circumstances, failures and trials of all kinds may come into his experience, and that one is at the mercy of all these vicissitudes. Can the individual be happy, he will ask, when all that made happiness is taken away? Can he be happy if he has lost all his worldly goods? or if death has taken those nearest and dearest to him? or if the separations of life, far harder to bear than those of death, have come to him? And yet, until he has learned to answer these questions with the most triumphant affirmative, he has not learned the measure nor sounded the depth of a true and noble order of Happiness. The difference is that of being safely on board a great steamer when wind and wave are tempest-tossed, or of being helpless in the raging waters. The storm may be precisely the same; the tempest may rage as it will, but safe and secure in the cabin or stateroom, the voyager does not mind its fury. And truly may this analogy be held in life. It is possible to emerge from the winds and waves; to enter so entirely into the sense of security in the Divine; to hold so absolutely the faith in the Divine leading, that even in the midst of trial and loss and deprivation and sorrow, one shall come to *know*, through his own experience, that "the soul is ceaselessly joyful." For it is one thing to accept a truth theoretically, or believe it intuitively, and another to prove it through experience that shall test the quality of faith and conviction. Learning this supreme truth of life through outward experiences as well as through inner revelation is a victory of the will that may even make itself an epoch, a landmark, in spiritual progress.

One of the great discourses of Phillips Brooks had for its theme the lesson of not laying too much stress on the recognition of one's motives or on any return of sympathetic consideration. "Let me not think," said Dr. Brooks, "that I get nothing from the man who misunderstands all my attempts to serve him and who scorns me when I know that I deserve his sympathy. Ah! it would be sad enough if only the men who understood us and were grateful to us when we gave ourselves to them had help to give us in return. The good reformer whom you try to help in his reform, and who turns off from you contemptuously because he distrusts you, seeing that your ways are different from his, he does not make you happy,—he makes you unhappy; but he makes you good, he leads you to a truer insight, a more profound unselfishness. And so (it is the old lesson), not until goodness becomes the one thing that you desire, not until you gauge all growth and gain by that, not until then can you really know that the law has worked, the promise has been fulfilled. With what measure you gave yourself to him, he has given himself—the heart of himself, which is not his favor, not his love, but his goodness, the real heart of himself to you. For the rest you can easily wait until you both come to the better world, where misconceptions shall have passed away and the outward forms and envelopes of things shall correspond perfectly with their inner substances for ever."

In the last analysis one comes to realize that happiness is a condition depending solely on the relation of his soul to God; that neither life, nor death, nor principalities, nor powers, nor height, nor depth, nor any living creature can separate him from it, because happiness and the love of God are one and identical, and it is not in the power of this world to give, or to take away, this sense of absolute oneness with the Divine life, that comes when man gives himself, his soul and body, his hopes and aspirations and ideals, in complete consecration to the will of God.

For this alone is happiness. It may not be ease nor pleasure, but it is that ceaseless joy of the soul that may be the daily experience of every human being. And to gain the deep inner conviction of this sublime truth is worth whatever it may cost of tears or trial. It is the threshold of joy. It is the initiation into a higher spiritual state which one may gain in his progress while on earth as well as in heaven. In fact, no one is really fitted for the highest privileges and sweetness he may crave until he has learned to live well, to live joyfully, without these. No one is fitted for joy until he can live well *without* joy. It is the law and the prophets.

The Brunswick, Boston.

Gems of Thought.

....There is no stay so strong as an unreserved abandonment of self into God's hand.—H. L. Sidney Lear.

....He does not love us because we are so lovely, but because He always loves what he pities.—Elizabeth Prentiss.

....They who have gone before have not therefore passed into a condition of lethargy or vacancy. They may be nearer to us, as they are nearer to the perfect love. They may guide us towards a holier and ampler freedom, since they suffer no more the limitations of time. The veil is rent. There is with us the presence of the unseen host.—Elisha Mulford.

....He who acts with a view to please God alone, wishes to have that only which it pleases God that he should have, and at the time and in the way which may be most agreeable to him; and, whether he have it or not, he is equally tranquil and contented, because in either case he obtains his wish, and fulfils his intention, which was no other than purely to please God.—Lorenzo Scupoli.

....There is some power we have not yet discovered, some secret as yet unknown,—but, oh! what a marvelous power! what a blessed secret! that can make the Christian life a life of love and trust and bright serenity; something different from the duty life, which, though real, does not satisfy; having all the activity and earnestness of the duty-life, but having with it the peace and joy which many and many a soul is craving. —William R. Huntington.

....Let us seek the grace of a cheerful heart, an even temper, sweetness, gentleness and brightness of mind, as walking in His light and by His grace. Let us pray to Him to give us the spirit of ever-abundant, ever-springing love, which overpowers and sweeps away the vexations of life by its own richness and strength, and which, above all things, unites us to Him who is the fountain and the centre of all mercy, loving kindness and joy.—John Henry Newman.

....The first resolve of one who gives himself wholly to God must be never to give way deliberately to any fault whatever; never to act in defiance of conscience, never to refuse anything God requires, never to say of anything, It is too small for God to heed. Such a resolution as this is an essential foundation in the spiritual life. I do not mean but that in spite of it we shall fall into inadvertencies, infirmities, errors; but we shall rise up and go on anew from such faults—because they are involuntary, the will has not consented to them.—Jean Nicholas Grou.

....Don't measure God's mind by your own. It would be a poor love that depended not on itself, but on the feelings of the person loved. A crying baby turns away from its mother's breast, but she does not put it away till it stops crying. She holds it closer. For my part, in the worst mood I am ever in, when I don't feel I love God at all, I just look up to His love. I say to Him," "Look at me. See what state I am in. Help me!" Ah! you would wonder how that makes peace. And the love comes of itself; sometimes so strong, it nearly breaks my heart.—George Macdonald.

....We are conscious of our own weakness and of the strength of evil; but not of the third force, stronger than either ourselves or the power of evil, which is at our disposal if we will draw upon it. What is needed is a deliberate and whole-hearted realization that we are in Christ, and Christ is in us by his Spirit; an unconditional surrender of faith to him; a practice, which grows more natural by exercise, of remembering and deliberately drawing by faith upon his strength in the moments of temptation, and not merely upon our own resources. "In the name of Jesus Christ of Nazareth I will do thus and thus." So we too may form, like St. Paul, the habit of victory.—Charles Gore.

Our Lady Readers will Recognize This Picture.

A Fac-Simile of the One Printed on the Wrappers of

Dobbins' Electric Soap

The soap their mothers used to delight in praising. Dobbins' Electric is the same pure article it was when it was first made and cost up to 14 cents a bar. If your clothes do not last as long and look as white as they used to, it is because your laundress is using some of the cheap trash, loaded with rosin or other adulterants, that is sold as soap. Dobbins' is pure, and made of borax and the finest oils. It whitens the clothes, and preserves them. It is the greatest disinfectant in the world. Sold by all grocers.

DOBBINS' SOAP MANUFACTURING CO.,

Sole Manufacturers. Philadelphia.

Notes and Queries.

HIGH RATE OF SPEED ON ELECTRIC TRACTION.—W. E. F.": Two systems of electric traction are in operation which are capable of carrying passengers at a speed of 150 miles an hour. One of them is in the suburbs of Chicago and the other near Berlin, Germany. The fast American train is on the Aurora, Elgin & Chicago Electric Railroad, and runs between Aurora, Ill., and the Fifty-second-avenue terminus of the Garfield branch of the Metropolitan Elevated Railroad, Chicago. The German train runs from Marienfelde to Zossen, near Berlin.

PAPER MONEY OUTSTANDING.—"Curious Investor": The various denominations of paper money outstanding Aug. 1 were as follows:

Denomination.	Total.
One dollar	$71,625,780
Two dollars	43,063,259
Five dollars	332,030,599
Ten dollars	422,622,622
Twenty dollars	318,208,966
Fifty dollars	57,978,715
One hundred dollars	86,986,670
Five hundred dollars	22,785,500
One thousand dollars	73,568,500
Five thousand dollars	29,835,000
Ten thousand dollars	89,890,000
Fractional parts	35,278
Total	$1,548,630,289
Unknown, destroyed	1,000,000
Net	$1,547,630,289

HOW GLACIERS ARE FORMED.—"W. W. C.": The joint cause of glaciers is precipitation and cold. A low temperature alone can do nothing without moisture, and this fact quickly disposes of the popular notion that glaciers invariably exist in cold countries. Tibet, for instance, and some parts of North America are destitute of ice springs, though eternal cold may be said to reign supreme in those parts. Imagine for a moment the higher mountains clear of snow and ice and then watch for the formation of a glacier. Snow falls and fills up all the valleys and gullies, avalanches descend from the higher parts and a great accumulation gathers in all hollows. By constant repetition of snowfalls (always provided a greater quantity is deposited than can be melted by the sun's rays and by the natural warmth of the earth's crust) great pressure is put upon the lower portions by the superincumbent accumulation, and, aided by the infiltration of water and refreezing, a large body of ice is formed, which at once begins to move down the valleys containing it.

CLEARING HOUSE.—"Young Financier": In New York alone there are daily about $165,000,000 in checks paid to sixty-four different banks. These would represent one hundred thousand checks if they average $1650 each. Mr. Brown would draw a check for $1000 on the First National Bank to pay Mr. White, who would deposit it in the Second National, and one hundred men might draw on the First National and deposit in the Second National while one hundred other men might draw checks on the Second National and deposit in the First National, and so the whole sixty-four banks would have thousands of checks crossing each other. Because of these many checks on each other, the sixty-four banks have organized a "Clearing House," and each bank sends daily all the checks it receives to the Clearing House, where they are compared, and if the First National Bank has $753,962.25 worth of checks deposited, and the other sixty-three banks have $875,432.56 of the checks of the First National when it pays into the clearing house the $121,469.31 balance due, and this is used to balance the sixty-three accounts. This saves a great deal of work for each bank and much expense. In the same way there is the National Clearing House, in which all the large cities unite to balance the checks drawn on each other, so that Chicago bank checks that go to Cincinnati are not all sent back to Chicago before the Cincinnati banks that receive them get their money, but only the balance of all the checks is sent.

——For many years Russia has been deporting to Siberia its men of the most active intellect and turning them loose in a new country to make a livelihood for themselves and for their families. It is not strange, then, to note that universities and museums are springing up in Russia's eastern possessions, nor that many of the men of science and teachers on the staff are exiles. There is scarcely a town of 10,000 inhabitants in all Siberia but has a public museum, under the care of a learned and competent curator.

DYSPEPSIA

Geo. S. Scally of 75 Nassau St., New York, says: For years I have been troubled with rheumatism and dyspepsia, and I came to the conclusion to try your pills. I immediately found great relief from their use; I feel like a new man since I commenced taking them, and would not now be without them. The drowsy, sleepy feeling I used to have has entirely disappeared. The dyspepsia has left me, and my rheumatism is gone entirely. I am satisfied if any one so afflicted will give Radway's Pills a trial they will surely cure them, for I believe it all comes from the system being out of order—the liver not doing its work.

Radway's Pills

cure all disorders of the Stomach, Bowels, Kidneys, Bladder, Dizziness, Costiveness, Piles,

SICK HEADACHE,
FEMALE COMPLAINTS,
BILIOUSNESS,
INDIGESTION,
CONSTIPATION
AND
All Disorders of the LIVER.

25c. per box. At druggists or by mail.

RADWAY & CO., 55 Elm St., New York.

Be sure to get "Radway's" and see that the name is on what you buy.

Poetry.

THIS DAY.

The Lord of hosts stretched forth his arm,
And led his hosts from sea to sea;
In war, in peace, in storm or calm,
The land was theirs; if they were free,
His free-born children they must be.

All nations called to him for bread,
From island and from continent.
"Give it today, O God!" they said.
From every land this cry was sent;
And, lo! from east to west his people went,
The stewards of his love to be.

"Give us our homes," his people said,
"In every land, by every sea,
Where we can plant this daily bread
Wherewith the nations shall be fed."
"Feed all my flock," their Father said,
"Offer this sacrifice to me.
I am the God who made you free."

"How long, O Lord!" his people cried.
"So many lands beneath thy sun
Which mountains part or seas divide!
Lord! hear our prayer and make them one!"
And he:
"One world, one home, one family,
One blood on every land or sea,
One household of my own shall be:
For this I make my children free.
—Edward Everett Hale, in Christian Register.

A MOUNTAIN BELLE.

No eye-bedazzling jewels deck
With sparkling rays of light
Her shapely hands or shapely neck,—
They are not even white.
No modiste ever spans her fair
Young figure with the tape
For gaudy gown, nor tells her where
She could improve her shape.
She knows no language but her own,
She does not play nor sing,
Her actions lack the cultured tone
That years of study bring.
But, oh! the snowy bread she bakes,
So feathery and light!
The prize pot from the table rakes—
It's simply out of sight.

She is not brilliant in her talk;
The authors cannot quote;
Indeed, her words at times might rock
The cultured language boat.
She could not play a winning hand
At game of etiquette,
Might wreck the music of the band
In tony dancing set.
At fashionable party she
Might shock the pampered belles,
And rouse the risibility
Of young man-monkey swells.
But that same rustic girl you'd hold
A treasure in your eyes,
And worth her weight in virgin gold
If you could taste her pies!

She boasts not of her ancestry—
The meaning of that word
Is Greek or Jersey or Chinee
To this wild mountain bird.
She reads but poorly, writes far worse,
Her spelling is non est,
She never yet was known to nurse
Ambitions in her breast.
Her mirror is a mountain brook,
Her ornaments the flowers,
Her boudoir is a rocky nook
Amid the sylvan bowers,
But though this angel never trod
The civilization track,
Her slapjacks would tempt any god
To stop and eat a snack.
—Denver Post.

CROSSING THE BAR.

Sunset and evening star,
And one clear call for me!
And may there be no moaning of the bar,
When I put out to sea.

But such a tide as moving seems asleep,
Too full for sound and foam,
When that which drew from out the boundless deep
Turns again home.

Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark;

For tho' from out our bourne of Time and Place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crost the bar.
—Alfred, Lord Tennyson.

DESTINY.

Oh! why do my heart pulses quicken
At the sound of your coming, dear heart?
And my cheeks grow warm in their blushing,
That comes not when we are apart?
What magical art is there hidden
That conquers my poor fluttering heart?
At Cupid's doorway did you tarry?
Oh! how else did you come by such art?
Love's destiny surely enwraps us,
For my heart does no longer beat free.
Can you give any reason, I wonder,
Why so fated we seem thus to be?
Love's reasons we cannot discover,
Though our hearts and our souls understand,
We love, and are loved by the other,
Thus Cupid rules over the land.
LOUISE LEWIN MATTHEWS.
Blue Hill, Milton, Mass.

....The little busy bee goes forth
In exultation just.
He gathers sweets for all he's worth
And fears no sugar trust.
—Washington Star.

....She holds the reins in her sweet hands,
Thinks Dobbins as he meekly paces,
Obedient to her commands:
"My lines are cast in pleasant places."
—Catholic Standard and Times.

....Lives of most rich men remind us
That if we would be sublime,
When assessors try to find us
We must dodge them every time.
—Chicago Record-Herald.

Miscellaneous.

The Long Corridor.

When Edwin Dumble, son of old Richard Dumble, the millionaire brewer, fell in love with Henrietta Schouler, he knew that his father would oppose their marriage. He was a sophomore at Harvard, and Henrietta was studying music with Madame Frisonne in Boston. Mrs. Sears, the girl's chaperone and aunt, had warned the youth that the attachment must be broken. "Not that I or Mrs. Schouler object, for you are a nice boy, Edwin; but your father would rather see you dead than allied to the Schoulers by marriage. Why? I can't tell you—go and ask your father."

So Edwin, hurriedly packing a bag, rushed to his parent's big New York office, blurted out the story of his love for the pretty music student, and demanded the reason for the anticipated opposition. There was a quarter of an hour of storming, —an incoherent damnation by the old man of everything connected with the Schoulers, and a sweeping characterization of the family that brought the young man to his feet almost screaming with rage—before an explanation was offered.

Then old Dumble said tersely:

"Old Schouler was my secretary once. Your mother was his sister; he trotted her around to me when he found out that I wanted a wife, and I married her. Before your mother's death Schouler married his second cousin, a woman of no family, an adventuress, who has been trying to get a hold on me ever since. This daughter has been shipped from St. Louis to Boston to study this fol-de-rol French singing, and—mark my words, boy—and to take you in! You've been taken in, too, easily enough."

"But," the old man's voice was raised in anger, "you must not see that creature again!"

"Creature!" cried young Dumble, starting up from his chair, "Sir, you must not say that again! Henrietta Schouler is the dearest, best girl on earth, and—" Edwin controlled himself with an effort.

"There is no use wasting words between us," said the father, speaking quietly now. "I can never consent to your marriage with that girl—I cannot consent to have you see her again. Mrs. Sears agrees with me. Now, will you give me your word as a gentleman—as my son—not to try to see her if you go back to Cambridge?"

"No," replied the son, "I love Henrietta better than my own life. I shall marry her, whatever you say or do." Then, for a time, the two stood face to face. The father turned from his gaze and began to pace the thickly carpeted floor of his big office, and presently the son was measuring the opposite limit of the room. And so, for half an hour. At last the old brewer stopped to face his son and say:

"I am quite determined that this marriage shall not take place. You would do well not to try to force it. I am prepared to go to any extent to prevent it. Now, go back to Cambridge with this thought before you always: I shall thwart every attempt you make to see the girl and will make it absolutely impossible for you to marry her. I hope you will recover from this madness."

The old man's tones were so even, so controlled, that the boy suspected a disposition to yield. He began to plead, saying that the girl was worthy, beautiful—everything desirable. But the thundercloud began to gather, and the incoherent pleading was stopped by a fierce oath.

"Go now, my son, before we quarrel further," said the old man quietly.

Young Edwin went back to Cambridge, leaving his father to an hour of fierce anger, then a night of active planning. When the rumble of the milk carts in the deserted streets announced the morning, the old man went home and to bed with a smile of confidence.

"It will be unusual, and a little hard to manage, but it won't hurt them!" he muttered before going to sleep.

Mrs. Sears, co-plotter with Mrs. Schouler, was entirely satisfied with the result of Edwin's visit to his father; the youth came back to her with a pitiful pleading to be allowed to see Henrietta. But she had to deny him, she said. Her plan was to force an elopement, and the boy must be goaded to a very frenzy of desire. She privately determined to allow their next attempted meeting, which was due within two days. But when that time arrived she was thunderstruck to find that another plotter had entered the game; that Henrietta had been, in some inexplicable way, spirited away from her house, half an hour before the young man made his back-yard entry to a deserted first-floor parlor.

As the youth opened the Searses' front door on the evening following his burglarious entry, the girl's aunt met him, wild-eyed and distraught.

"Oh! where have you taken Henrietta? where is the child?" Mrs. Sears was in an agony of fear.

"I?" queried the astonished boy. "I have not seen her for months. Oh! what has become of her—why did I not see her last night?" Mrs. Sears promptly fainted, and was given over to the care of her maid. Edwin could get nothing more from her. But he was determined to find Henrietta and marry her at once.

In a delirium of fear for the girl and rage at his own cursed stupidity, he started to walk back to his rooms in Cambridge. He never got to them. He disappeared from the college world as completely as though the earth had opened to swallow him.

. . . . . .

On the top of Cardigan Mountain in New Hampshire, a stern-faced old man directed the labors of twoscore of workmen. This horde had suddenly descended upon the peaceful hill village two days before, and straightway began the erection on the mountain top of a curiously divided, substantial structure, where, it was announced, a certain rich meteorological experimenter was to spend the winter and spring. It was a matter of snow formation and precipitation, it was said, in which Professor Butler was interested.

Two days from the appearance of the workmen the last nail was driven, and a train of wagons, loaded with a winter's supply of food and clothing, was started for the top. And that evening, when the darkness blotted out every feature of the landscape, the old man appeared with a clinging, frightened-looking girl on the mountain-top. On the next evening, the darkness blotting everything from view as before, the old man brought up a younger man, to be, as he said, assistant to the professor. Then, with a corps of close-mouthed helpers, the experimenters shut themselves away from the world and were buried in the snow of the mountain-top.

The mythical Professor Butler's experiment station was constructed in a peculiar way. Two low-roofed, solidly anchored structures, identical in size and shape, were set on the very edge of a precipice that dropped sheer five hundred feet. Three walls of each structure were windowless, unbroken save by heavy doors,—the third, fronting the precipice, had abundant light and ventilation. And between the two structures, opening into each, was a long, covered corridor, lighted from the north, but through which, when it was completed, no man could pass.

Old Richard Dumble, who had assumed the role of the professor, took his son to the end of this strange corridor, and, pointing to the door that loomed at the other end, said:

"In the room at the end of this long passage is the foolish young girl you profess to love better than your own life. This door here, as you see, is open, and will be left unlocked. Yonder door is likewise freely passable. But between these doors is this passage, through the floor of which, when either of you tries to pass, you will fall upon the rocks five hundred feet below. I have had marked upon this passage floor the point beyond which you may not go without breaking through. On the girl's side I have taken the same precaution.

"I shall keep you both up here until you are tired of this farce you call loving. I can trust my helpers. I have everything ready to keep you a year if necessary. Whenever you are ready to come to me and swear that you have banished all thought of Miss Schouler from your mind, I will have you both released, send you back to Harvard and make a man out of you.

"But if, in reality, you love one another better than life, you have only to rush together through this passage to a romantic death. Rather than to see you mated with that girl, I would come up to this mountain when the snow is gone in the spring and gather your bleached bones off the rocks. You won't do anything so foolish, I know, and so goodby, my boy, until you send for me."

The old man went out hurriedly, choking a little over the last words. A ponderous lock grated as the father's form disappeared through the door, and the boy turned to gaze, fascinated, down that fatal corridor.

Presently, as he watched, Edwin saw the form of Henrietta Schouler at the opposite door, and he started forward impulsively in an ecstasy of welcome. When the girl saw her lover, she, too, strained forward a pace, and then recoiled with a cry of terror. That tell-tale mark which the old brewer had showed her stretched its impalpable barrier almost under her feet.

On his side, Edwin approached the white line with an unnatural caution. With his toe on its edge, he felt the fragile floor quake and sway. He crept back to the doorway, a blind animal terror clutching him, and the sweat beading on his forehead. He stood for a moment gazing at the face framed, beside his father's, in that other prison door. He stretched his arms towards the girl, and cried out to his father for pity. The old man finished his talk to the girl, and went out, paying no more heed to the boy's cries than to the wind that rattled the window frames.

Then, for the two young people, began the most curious imprisonment that a prosaic twentieth-century chronicle has ever recorded. In an age that fostered intrigue and inquisition, old Dumble would have been a master plotter. Now he was a shrewd, rich old autocrat with a purpose in view which he was determined to accomplish as quickly as possible.

Thus reasoned the old man: "Once in a thousand cases, perhaps, a man and a woman will love one another better than life. In this practical age, though, the proportion may be cut down to one in ten thousand. What youth mistakes for the divine passion, lasting through and beyond the span of life, is the impatience of young years, the desire of a child for the moon, the changing whim of an eager age. Fan this quick flame to white heat and it will soon die to cold ashes. Now, if Edward is of the nine thousand nine hundred and ninety-nine, he will soon wear out this love in daily sight of his desired one, and come back to me a wise boy, and no law will be broken—the girl will go unharmed. If he is the one in ten thousand, and the girl is the one in five thousand (for that sex is certainly more impulsive), why, then—but, pshaw! he isn't."

The brewer knew humanity passing well and watched his experiment with confidence. Old Schouler was wild at the disappearance of his daughter; the little world in which the Schoulers and Mrs. Sears moved was in a turmoil; but—old Richard Dumble's world had a wider orbit! No suspicion attached to the old man, and the world, or that part of it that fretted over the young people's affairs, had to fall back upon the theory of an elopement.

Deserted by the world, ministered to by grim, close-mouthed servants, supplied with the comforts and amusements of normal young people—Edwin with books and gymnasium apparatus, Henrietta with music, the latest novel, embroidery—the two prisoners passed their days in maddening proximity. The corridor was far too long to permit the tender whisperings that lovers commonly use; indeed, there was always the bellowing wind as a rival in any exchange of vows. But there was the language of signs, and eternal rust that could be expressed in a clutching at vacancy.

Books mocked the young man,—what did they say but love that was always rewarded in the end? Music, such as she knew, spoke to Henrietta of love that blossomed in a free young breast,—and here the blasts that whirled up that precipice face turned her plaintive notes to a thin wailing. The grim faces of the servants, passing in and out, silently, except for the jangling of the big keys, oppressed the spirits of both. A sort of desperate recklessness possessed the lovers,—they paced their rooms, in and out of those corridor doors, up to the line beyond which it were death to pass; and a great despair came upon them

Winter gave way at last to spring, and even on that bare mountain-top, where the world stretched away from their view a thousand feet below, the new balm came to renew the lovers' passion. Not once had Edwin taken pen to write his defeat; not once had Henrietta failed to gain courage from a fresh sight of the man who loved her. Sometimes, in a lull of the everlasting mountain storm, they had called to one another to be brave and faithful.

The earth was released from the grip of the snow, and young leaves came out to clothe the trees on the beautiful New Hampshire hills. At last the little lakes that dotted a broad, green valley shone up to the prisoners like bright jewels on a warm, full bosom. Life, throbbing, new, eternal, woke the flame of love to white heat. The decrees of man seemed impotent, unreal. Heaven-sent love, the cry of man to maid, and of the spring to young hearts, swept the lovers' reason and fear to the winds. A great cry, like a challenge to God, rang out from the boy's lips.

"My love, do you fear death?" And the answer, keyed to an exultant pitch, rang back.

"Not with you, my sweetheart!"

"Ah! then come." With the words, Edwin sprang forward to meet the oncoming rush of the mad girl. One step over the white dead line, and the floor was creaking like thin ice. Two steps, and it was swaying like a showman's net. With the touch of hand to hand, the frail foundation splintered and fell with a crash in which were mingled the terrified scream of the girl and the exultant cry of the infatuated lover.

. . . . . .

"Sir, my master bade me give you this paper whenever you appeared here." Dazed, uncomprehending, Edwin Dumble glanced up from a tangle of broken beams to see a close-buttoned, deferential servant at his side, extending to him a square folded paper. His eyes sought wildly for Henrietta. She was lying near him in an incongruous heap, looking about in a panic of wonder.

The youth opened the paper and read:

"If you are the one in ten thousand, and risk death for the girl, you deserve her. Go and be married, and come to me at once. I hope you will not be hurt by the splinters.

"RICHARD DUMBLE."

"Splinters"! What kind of an after-death dream was this. Then young Dumble looked up, to see the gaping hole in the corridor floor hardly six feet above the sawdust-covered ground on which he sat!—John K. Oskiem, in N. Y. Evening Post.

Brilliants.

Just live thy life. Be not in fear.
The strength of wrong shall disappear,
And right is ever drawing near.
Just live thy life.

Just live thy life. Seem what thou art;
Nor from simplicity depart;
And peace shall come upon thy heart.
Just live thy life.
—James Lenno Stockton.

I never knew how very dear
My fellow-men could be,
Until I learned to help them with
A ready sympathy;
Their inner lives have made me know
A broader charity.

I never knew how little things
As greater ones could be,
When sanctified by love for One
Who doth each effort see;
But now a daily round of care
May win a victory.
—Living Church.

O Love, that dost with goodness crown
The years through all the ages down!
'T is in thy strength the mountains stand,
The seasons roll at thy command,
And rooted are all things that bless
Deep in thy everlastingness.
—J. W. Chadwick.

'T is not the whole of life to live,
Nor all of death to die.
—Montgomery.

"We older children grope our way
From dark behind to dark before,
And only when our hands we lay,
Dear Lord, in Thine, the night is day,
And there is darkness never more.

"Reach downward to our sunless days
Wherein our guides are blind as we,
Where faith is small and hope delays,
Take Thou the hands of prayer we raise,
And let us feel the light of Thee."
—Robert E. Speer.

Youth's Department.

BEARS.

When I my last good-night have said,
When lights are low, and I'm in bed,
Then, oh, dear me!
I always see
Bears.

I hang my clothes with nicest care,
As I've been told, upon a chair,
They always turn,
When low lights burn,
To bears.

If, then, I move to face the door
And rug lies rumpled on the floor
Why, I would know,
Should that rug grow
A bear?

When Bruno growls, though no one's near,
When sleeping puss awakes in fear,
'T is plain to me
They also see
Those bears.

When I'm a man, how shall I fight
A bear that disappears with light?
While pondering deep
I fall asleep
To bears.
—Louise T. H. Pope, in Christian Register.

Nowhere and What was There.

Dorothy sat up in bed impatiently. "I can't see why you don't let me alone," she said to the Dream. "I was good: I was sound asleep."

"That's about the only time that you are good," said the Dream, balancing himself on the footboard.

"Well, you needn't talk," said Dorothy, crossly. "You are bad yourself. In fact, you are about the worst Dream I ever had."

"Oh, come now," said the Dream. "How about that one that brought the great, big striped tiger right into your room, and was going to let him eat you up, only your mother came, when you screamed, and drove him away?"

"Yes, he was pretty bad," admitted Dorothy, "but just see what you did! You knocked the floor right out from under everything, so that, when I looked over the edge of the bed, I looked clear down to Nowhere, and pretty nearly fell over. It was awful!"

The Dream giggled. "My! but you were frightened! And I have not put the floor back again yet, either! Say, come on down there with me, and I'll surprise you. We will be back to breakfast."

"But you are a bad Dream, and I am afraid to trust myself to you," objected Dorothy. "You might get me into all sorts of trouble. No, thank you, I don't believe I'll go."

"Oh, yes, you will," said the Dream, jumping off the foot-board and hopping across the counterpane toward her. He was little and thin and brown, and had sharp ears and a sharp nose and sharp toes, and very, very sharp eyes; and he wore a suit of skin-tight brown velvet and little, soft velvet shoes. He took hold of two of Dorothy's fingers! "Come on," he said.

"I won't!" said Dorothy, holding back, and looking fearfully over the edge of the bed, away down to Nowhere.

"Oh, yes, you will," said the Dream again. "Stand up!"

Dorothy obeyed, although she tried her very best not to. It seemed as if she simply could not help herself.

"Now jump!" said the Dream; and away they went.

"Why, this isn't so very bad," said Dorothy, catching her breath after the first terrible feeling of falling, as she found herself moving swiftly along through space; "only I'd like to see something. When you can't see a thing, and it isn't dark, either, you sort of feel as if you weren't anywhere."

"You are not," said the Dream. "This is Nowhere."

"Oh!" said Dorothy. "Then there isn't anything here to see, of course."

"What would you like to see?" asked the Dream. "If there is anything that isn't anywhere that you would care to have a look at, just think of it, and you will see it."

"I should like to see Tomorrow," said Dorothy, hesitatingly. "Folks are always talking about it, and yet it never comes."

As she spoke she saw before her a great figure plodding along in the shadow. Its face was scowling and fretful, and it was loaded down with all sorts of things. In one hand was a satchel of school books and a half-hemmed handkerchief, while the fingers of the other hand were constantly moving up and down as if practising on the piano, and all over its back were pinned unfinished pieces of fancywork, half-written letters and neglected tasks of all kinds.

"Oh, how ugly!" exclaimed Dorothy. "I always did hate tomorrows, there is so much to be done in them, but I had no idea that they were as bad as that. And I see now why it never gets here, because it is going the other way, of course."

The Dream chuckled. "Don't like her appearance, eh? Well, it is all in the way that you look at her. Go around on the other side, the bright side, and take a look from there."

Dorothy stepped around on the other side, and, lo! the shadow melted away, and the heavy, dark figure changed to that of a lovely maiden dancing along before them, smiling and beckoning. Her hair was wreathed with flowers, and over her arm were thrown daintily finished bits of sewing and embroidery. The fingers of one hand still moved as if playing on the piano, but they brought forth the most beautiful music.

Dorothy started forward. "Oh, how lovely!"

"Makes a difference which way you look at her, doesn't it?" said the Dream.

"I should say so!" cried Dorothy. "I shall always look at the bright side hereafter. I had no idea that it made so much difference."

"Good!" said the Dream. "Now what else do you want to see? But never mind, here comes something."

Dorothy looked, and then screamed and clung to the Dream; for there, coming straight toward her, was a most dreadful object. It was very big, nearly as large as a horse and much heavier, and it had long, shaggy hair, and hard, smooth wings, like those of a beetle. It walked upon at least eight legs, and a great pair of strong, sharp pincers projected in front of its nose; and it seemed to have about a hundred eyes on each side of its head.

As it came toward them, it opened its great red mouth full of shining white teeth, and uttered a terrible sound, something between a snarl, a roar and a buzz.

"Oh, what is it? What is it?" shrieked Dorothy, trying in vain to run away; for her feet seemed glued to the nothing upon which she was standing.

"That is a Bugbear," said the Dream calmly; "and it is coming rather near, too, so you had better drive it away pretty soon."

"Drive it away? Oh, how? What shall I do?" screamed Dorothy, as it came closer and closer. "Why, I haven't so much as a pin."

"Laugh," said the Dream.

"Laugh!" she exclaimed indignantly. "How can I laugh, you horrid, cruel Dream, when I am frightened almost to death? Oh, dear! Oh, do something quick!"

"Do it yourself," said the Dream. "Laugh, as I told you. That is the only way."

Already the terrible beast was almost upon her, opening and closing his great pincers like an enormous pair of clashing shears. There seemed to be nothing else to do, and so poor Dorothy uttered a timid, weak little "Ha-ha!" that sounded about as humorous as a sob. Nevertheless, the Bugbear seemed to hesitate, and put up a pair of his big fore paws as if to ward off a blow. "Ha-ha!" said Dorothy again, this time a little more confidently. The Bugbear backed off somewhat, and began to tremble all over. He looked so funny, such a great, big shaggy thing seeming so frightened, that Dorothy burst into a genuine laugh, loud and long. That was too much for the poor Bugbear. He tried to turn and run, but his knees were too shaky, and he only sank down upon them, growing smaller and mistier; and, when Dorothy ran forward, still laughing at his ridiculous appearance, she found that he was only a sort of a dusty cloud, which soon faded away to nothing.

"Why, he wasn't anything at all!" she exclaimed to the Dream, in surprise.

"You are right," said the Dream. "Always meet a Bugbear with a laugh, and he isn't there."

"How funny it is in Nowhere," said Dorothy. "But you an learn things. Really, I am growing quite brave. I think I would like to see a Ghost now, if you will be sure to stay with me."

"Oh, I'll stay," said the Dream. "Here it comes." And, sure enough, there before them stood an indistinct white figure, swaying back and forth in the air, and looking very ghostly indeed.

Dorothy shrank back a little. "I—I don't feel quite as brave as I did," she said in a rather small voice. "I think that I can see its eyes: they are sort of smoky and fiery."

"Go closer," said the Dream.

Dorothy took a timid step forward, and saw that the white figure seemed to be wrapped in just an ordinary white sheet, and that the eyes were merely spots of phosphorus painted upon it. Then she grew braver.

"Pull off the sheet," called the Dream.

Dorothy summoned up all of her courage, and, leaning forward, she gave the corner of the sheet a jerk, when out jumped a little, laughing boy with red cheeks and shining eyes.

"Who are you?" exclaimed Dorothy, rather startled, but smiling in spite of herself.

"Why, I'm a Joke," said the merry little boy. "That is what all ghosts are. Pull off the covering, and you'll find a joke inside every time. You may be sure of that, so you need never be afraid."

"True enough," said the Dream, joining them. "They are bad-mannered fellows, these Jokes who hide in ghosts; but they will never hurt you. They don't mean to be really bad. They are just mischievous; and sometimes they get the worst of it themselves, when they have angry people to deal with. Come, now, it is almost breakfast-time. Is there anything else that you are afraid of and would like to see before you go back?"

"Well," said Dorothy, "when there is a very hard thunder-storm, I sometimes think that perhaps the end of the world has come, and that sort of frightens me."

"I can show you about that," said the Dream. "Now don't be afraid."

Then Dorothy heard a great rumbling of thunder, and saw monstrous clouds come rolling up, rent here and there by vivid flashes of lightning, while the wind blew in long, heavy gusts; but she only pressed her lips tightly together, and kept saying to herself: "The Dream is with me. Nothing can really hurt me while I have the Dream."

They had been moving along very rapidly with the storm; and presently Dorothy saw that before them stood a great wall, of which she could see neither the top nor the bottom.

"This," said the Dream, "is the end of the world."

"But what is on the other side?" asked Dorothy.

"Oh, you want to see beyond, do you? You didn't say that. Well, go close to the wall."

Dorothy did so; and, as she laid her hand upon it, she found that it was only a soft gray curtain of mist. She drew it gently aside, and peered beyond. For a long time she stood looking, her face bright with surprise and pleasure and her eyes shining with delight. Then she drew a long breath, and turned to the Dream.

"Well, if that is what comes at the end of the world, I don't care one bit how soon it comes," she said.

"Perfectly satisfied, are you?" said the Dream, with a little chuckle. "It is funny, the sort of things that folks are afraid of. Come now, it is breakfast time. Home you go. Shut your eyes."

When she opened them again, the clock was just striking seven, and she was once more sitting up in bed.

"Well," she said, as she looked over the bed-rail down to the blue and white forget-me-not carpet "that Dream was not such a very bad one, after all."—Cassell's Little Folks.

Historical.

—The first successful American locomotive the "Arabian," was still running in 1883. It was exhibited at the Chicago railway exposition, and was burned by accident at Pittsburgh the same year.

—The hundredth anniversary of Cornwallis' surrender was celebrated at Yorktown in 1881. But, in order to show the country's present friendship for Great Britain, President Arthur ordered that the celebration should end with a general salute to the British flag.

—In modern times, when the machinery counts so much, the wealth of a country depends very much on its supply of coal. Great Britain's coal supply will be used up in a century, and it is hard to say what she will do then. We know already of two hundred thousand square miles of coal territory in the United States, forty times as much as in Great Britain, and twenty times as much as in Europe altogether.

—The Electro-Magnetic Telegraph came into practical use in 1844. There had been "telegraphs" for many years before; but these were only long lines of signal-posts, at some distance from one another, which sent messages altogether by sight, one letter at a time. In 1837, Samuel F. B. Morse took out his first patent for applying electricity as a force for telegraphing through wires. Six years afterwards, Congress appropriated money to try the invention. In the following year, 1844, the first line was constructed from Baltimore to Washington, and it proved to be a success. Telegraph companies were at once formed, and new lines were constructed.

—Extradition of criminals between the United States and Great Britain was secured by a treaty, which was made in 1842. Each country agreed to arrest and send back criminals who should escape to it from the other country. It was thus no longer possible for a criminal to find safety by simply crossing the Atlantic. Similar treaties have since been made with most other countries, so that there is now hardly a corner of the civilized world in which a criminal can find a safe refuge. This is still more the case since ocean telegrams have come into use; the runaway generally finds the officers waiting for him when the steamer arrives.

—The Declaration of Independence was drawn up by Jefferson. The other members of the committee were John Adams, Franklin, Sherman and Livingston, but they did but little of the work. Adams did most of the speaking in its favor, as Jefferson was not a good speaker. Parliament is not mentioned in the Declaration, except as a body of men whom the king had aided in acts of "pretended legislation" over the colonies. The new idea in the Declaration is that governments are to be made and changed by the people; elsewhere, up to that time, it was held that the people were bound to obey the government, as long as it protected them. The success of the American Revolution brought about the French Revolution in 1798 and the following years. It was based on the same idea, which now controls every government whose people care to assert it.

Curious Facts.

—Out of a single pound of cotton 4770 miles of thread have been spun.

—Canada has most holidays of any British colonies. Including Sundays, Canadians have ninety-five holidays yearly.

—Bristol cathedral was 582 years in building, and Gloucester cathedral 425. Peterborough and Durham also took over four centuries to complete.

—Queen Alexandra owns a pair of opera glasses, made in Vienna, valued at $20,000. They are of platinum, set with diamonds, sapphires and rubies.

—Cocoanut trees grow in large plantations close to the shore all over the Philippine Islands Within the last twelve years the trade has increased tremendously. The product is periodically affected by heavy typhoons, but requires only a few years to pick up again.

—A journal in Vladivostok states that the Russianizing of the Chinese has already begun. The Chinese dealers and merchants in Port Arthur and other towns make a great point of adding to their family names a Russian ending, besides aping the Russian dress and manners.

—Fifty-five years ago William Ziler of Martinsburg, W. Va., then a boy of seventeen years, caught a tortoise in the Capon mountains and cut his initials, W. Z., on its back, together with the date. Within the last week the tortoise was caught on the same mountain by a friend of the Ziler family and was presented to his family.

—Complaint is made in Paris that, while French guards on the sleeping-car trains between Paris and Berlin are obliged to efface themselves at the frontier and make way for German conductors, the Teutons on the return journey remain at their posts until the French capital is reached.

Home Dressmaking.

Hints by May Manton.

4242 Girls Costume 4 to 10 years. 4245 Waist with Bertha, 32 to 40 bust.

Woman's Waist with Bertha. 4245.

To be made with High or Low Neck, Long or Elbow Sleeves.

The foundation lining fits snugly and closes at the centre front, but separately from the waist. The full portions of the waist proper are gathered and arranged over the lining, closing invisibly at the centre front. The yoke closes at the left shoulder seam. The circular bertha falls in graceful ripples from the lower edge of the yoke. The sleeves are made with snug fitted linings which are faced to the elbows, and full drooping puffs are arranged over the upper portions.

The quantity of material required for the medium size is 4¼ yards 21 inches wide, 3½ yards 27 inches wide or 2 yards 44 inches wide, with 1½ yards 18 inches wide for yoke, collar and lower sleeves.

The pattern, 4245, is cut in sizes for a 32, 34, 36, 38 and 40 inch, bust measure.

Girl's Costume. 4242.

The costume consists of the waist, which is made over a fitted body lining, and the skirt, which consists of two circular portions that are joined to a smooth foundation. The body lining is faced to form the yoke, over which the full waist is gathered and arranged. The novel and stylish bertha that finishes the neck is graduated to form pointed revers at the front, while at the throat is a standing collar. The sleeves are in bishop or guimpe style with straight cuffs. The skirt is trimmed on the edges of the flounce and circular upper portion, giving a double effect that is exceedingly smart.

The quantity of material required for the medium size (8 years) is 5 yards 21 inches wide, 4½ yards 27 inches wide, 3½ yards 32 inches wide or 3¼ yards 44 inches wide.

The pattern, 4242, is cut in sizes for girls of 4, 6, 8 and 10 years of age.

244 Seven Gored Skirt 22 to 36 Waist, 4240 Misses Jacket 12 to 16 years.

Misses Jacket. 4240.

Loose jackets, in box style, are much in vogue for young girls, and make ideal cool-weather wraps. They slip on and off with ease, and being loose, admit of an additional under wrap when the weather demands. The season's display shows them in tan covert and black cloth, in silk interlined and in cheviot. The model is adapted to all materials, but as shown is of tan cloth stitched with Corticelli silk.

The jacket includes loose fronts and half-fitted backs, that are joined by means of curved under-arm gores, and closes at the left side in double-breasted style. The sleeves are in bell shape, and fit smoothly at the arms-eyes. At the neck is a deep turn-over collar.

The quantity of material required for the medium size is 3¼ yards 21 inches wide, 2 yards 44 inches wide, or 1¼ yards 52 inches wide.

The pattern, 4240, is cut in sizes for misses of 12, 14 and 16 years of age.

Woman's Seven-Gored Skirt. 4244.

To be Made With or Without the Circular Flounce.

The skirt is cut in seven gores of full length that are carefully shaped to be snug about the hips and to flare freely at the feet. The flounce extends from the front gore, where it is joined to its edges, and can be either seamed to the lower edges of the side and back gores (the material beneath being cut away on lines indicated in the pattern) or applied over the full length skirt as preferred. The fullness at the back is laid in flat inverted plaits.

The quantity of material required for the medium size is 10½ yards 21 inches wide, 7 yards 32 inches wide, 4¼ yards 44 inches wide or 4¼ yards 52 inches wide when flounce is used and material cut away underneath, 10½ yards 21, 6½ yards 32, 4¾ yards 44 or 3½ yards 52 inches wide when made plain.

The pattern, 4244, is cut in sizes for a 22, 24, 26, 28, 30, 32, 34 and 36-inch waist measure.

4241 Shirt Waist, 32 to 40 bust. 4243 Woman's Kimona 32, 36 and 40 bust.

Woman's Shirt Waist. 4241.

To be Made With or Without the Fitted Lining, and Closed in Double-Breasted Style or Rolled Back in Revers.

Shirt waists that include the Gibson plaits over the shoulders are much liked, and can be relied upon as correct for the season to come, as well as for the immediate present. This stylish model also includes the fashionable postillion, and has the merit of allowing a plain, double-breasted front or of being rolled back to form tapering revers, as shown in the small sketch. The original is of the new parmetta cloth in paste! blue, and is trimmed with the border of the material, which is embroidered in white silk, but all waist and dress materials are appropriate. The waist is made over a fitted lining, that closes at the centre front, but itself consists of back and fronts only, which are arranged over the foundation after the shoulder seams are closed and the plaits stitched. The sleeves are in bishop style, and at the neck is a regulation stock. When desired with revers the fronts can be faced, and rolled back from the indicated centre, which is closed invisibly. As shown on figure the waist is lapped in double-breasted style, and closed by means of buttons and buttonholes.

The quantity of material required for the medium size is 4 yards 21 inches wide, 4 yards 27 inches wide or 2½ yards 44 inches wide.

The pattern, 4241, is cut in sizes for a 32, 34, 36, 38 and 40-inch bust measure.

Woman's Kimono. 4243.

The Kimono is made with deep yoke or short-body portions to which is joined the graceful rippled skirt. Finishing the front edges are bands of silk, and the collar is made double and rolled over at the neck. The fronts lap widely in closing, and passed around the body over the lower edge of the yoke under the arms and over the bust is the sash that is tied in a soft knot from which droop the long ends at the left side. The sleeves are in bell shape, finished with bands matching those at the front.

The quantity of the material required for the medium size, 10½ yards 21 inches wide, 8 yards 27 inches wide, 7½ yards 32 inches wide or 6 yards 44 inches wide, with 2 yards of plain silk 21 inches wide for collar, sash and band trimming.

The pattern, 4243, is cut in three sizes, small is 32 inches, medium is 36 inches and large is 40 inches bust measure.

HOME DRESSMAKING.

SPECIAL PATTERNS—For a catalogue of any pattern illustrated on this page, send 10 cents (coin or postage stamp), state number, shown on cut, and size wanted, and write your name and address distinctly. Mail orders filled promptly. Address MASSACHUSETTS PLOUGHMAN, Boston, Mass.

The Horse.

Nashua (N. H.) Meeting.

In spite of bad weather one of the most successful meetings at the half-mile track was held last week at Nashua, N. H. The meeting was to have opened on Tuesday, but rain compelled a postponement until Thursday, when three races and part of another were worked off. There was a good attendance throughout the week, and the racing was spirited. The 2.22 trot on Thursday was split up into five heats, and was finally won by the gray gelding Deceiver. *Aristocrat* captured the 2.19 pace in straight heats, and the 2.40 trot went to Frank Kenney in the same fashion,

Harry Mac won the two opening heats of the 2.22 pace, and *Earl F.* captured the third heat, when the race had to be postponed on account of the lateness of the hour.

Sixteen heats were worked off on Friday, and it was a day of great racing. The race unfinished on Thursday was spun out for three more heats. *Lady Nelson* stepped to the front in the fourth heat and won the next two and the race.

Peeler Patron placed the 2.14 pace to his credit after *Gloria* had won the opening heat.

Ralph Wick won the 2.16 trot and captured the track record for trotters by stepping the third heat in 2.14¼. He trotted a great race for John Riley, stepping his three miles in 2.15½, 2.15¼ and 2.14½. The 2.23 trot fell to Dimple in straight heats, and the 2.25 pace had to be carried over until the following day, after three heats had been stepped in it, Victor winning two and Masterlode one.

Four regular events and the held-over race were completed on Saturday. *Masterlode* won the next two heats of the postponed 2.25 pace. The 2.19 trot went to Bovor. *Annie M.* won the 2.17 pace, and the free-for-all was captured by *Frank Yokum*, and Frank Kenney placed the second race of the week to his credit, by winning the 2.29 trot.

SUMMARIES.

Nashua, N. H., Oct. 2, 1902—2.22 trot. Purse, $300.

Deceiver, gr g, by Cornish Boy (Fox)	5	2	1	1	1
Jack Splan Jr., b h (Churchill)	4	3	2	2	2
Dash, b g (Darcy)	2	5	5	3	3
Florence C., b m (Brewster)	3	4	4	4	4
Fred C., b g (Cox)	1	1	3	5	ds

Time, 2.23¼, 2.22½, 2.23¾, 2.23¾, 2.26¼.

Same day—2.10 pace. Purse, $300.

The Aristocrat, b g, by Athanio (Littlefield)	1	1	1
Billy Hurd, b g (Woodrow)	2	2	3
Harry Hotspur, ch g (Devlin)	4	4	2
Bella, b m (Brewster)	3	3	6
Luzarro, blk m (Rolston)	5	6	4
Gail, b m (Draper)	6	6	5

Time, 2.16¼, 2.17, 2.18.

Same day—2.40 trot. Purse, $300.

Frank Kenny, rn g, by Jay Bird (Downer)	1	1	1
Wilson S., br g (Harvey)	2	2	2
Robert W., b g (Palmer)	4	3	3
The Marshall, blk g (Pope)	3	dis	
Red Macy, b g (Proctor)	5	dis	

Time, 2.27¼, 2.25½, 2.28½.

Nashua, N. H., Oct. 3, 1902—2.22 class, pace. Three heats paced Oct. 2. Purse, $300.

Lady Nelson, b m, by Jack Pointer (Cox)	2	6	4	1	1	1
Harry Mc, blk g (Bowser)	1	1	6	5	5	5
Bella Benson, ch m (Draper)	6	2	2	2	3	ro
Turvy Drop, gr g (Lang)	3	3	5	4	2	ro
Earl F., gr g (Kendrick)	4	4	1	3	dr	
Lady Nance, ch m (Fox)	5	5	3	6	4	ro

Time, 2.16¼, 2.18¾, 2.22½, 2.20½, 2.20¼, 2.20¼.

Same day—2.14 pace. Purse, $300.

Peeler Patron, b g, by Peeler (Richardson)	2	1	1	1
Gloria, b m (Fox)	1	2	2	2
Christine B., b m (Cox)	2	3	3	3
Ozette, b m (Longbotham)	5	4	4	4
Conc, b m (Nugent)	4	8	7	8
F. M. Williamson, br h (Lansing)	7	6	6	5
Airline, ch g (Coe)	8	7	5	6
Henry's Girl, b m (Lang)	6	5	8	7

Time, 2.14½, 2.13¾, 2.13¼, 2.14¼.

Same day—2.16 trot. Purse, $300.

Ralph Wick, b g, by Almont Brunswick (Riley)	1	1	1
Midnight, blk h (Cox)	2	2	2
My Chance, ch h (Smith)	3	3	3
Authoress, b m (Devlin)	4	dis	

Time, 2.15½, 2.15¼, 2.14¾.

2.25 class, trot. Purse, $300.

Dimple, br g, by King Fisher (Cox)	1	1	1
Susie S., b m (Doble)	2	2	3
Lily of the Valley, blk m (Richardson)	4	3	2
Alruna, br m (Gordon)	3	4	4
Bither, b g (Churchill)	5	dis	

Time, 2.24¼, 2.21½, 2.25¼.

Nashua, N. H., Oct. 4, 1902—2.25 pace. Purse, $300. Three heats paced Oct. 3.

Masterlade, ch g, by Egbert (Burns)	4	3	1	1	1
Victor, ch g (Brewster)	1	1	2	3	3
Fanny T., b m (Cronin)	2	2	4	5	4
Nancy Allen, b m (Rathburn)	3	4	3	4	2
Dent F., b g (Cox)	5	5	5	2	5

Time, 2.21¼, 2.21¾, 2.21½, 2.19½, 2.21¾.

Same day—2.19 class, trot. Purse, $300.

Bovor, ch h, by Beauvoir (Marston)	1	1	1
Parker G., b g (Fox)	2	3	2
Jennie Hale, b m (Taft)	4	2	4
Kitty Hudson, ch m (Furgeson)	3	4	3

Time, 2.21¼, 2.22¾, 2.21¼.

Same day—2.17 pace. Purse, $300.

Annie M., blk m, by Gambrel (Doble)	1	2	1
San Telmo, b g (Gillies)	2	1	2
Harry L., b g (Rathbun)	4	4	6
Borallight, ch m (Cox)	3	5	7
Gypsy Wilkes, b m (Reynolds)	6	3	5
Trossie, ch m (Marston)	7	6	3
Uncle Angus, b g (Maker)	5	7	4

Time, 2.17, 2.18¼, 2.18¾, 2.18¼.

Same day—Free-for-all. Purse, $300.

Frank Yokum, b g, by Parker (Doble)	1	1	1
Dumont W., b g (Sodder)	3	2	2
Roan Wilkes, rn h (Winch)	2	3	3

Time, 2.14¾, 2.12¾, 2.15.

Same day—2.29 class, trot. Purse, $300.

Frank Kenny, rn g, by Jay Bird (Vadnais)	1	1	1
Jimmy Michael, b g (Devlin)	2	3	2
Kitty Wilkes, b m (Rathburn)	3	2	4
Wilton S., br g (Harvey)	4	4	3

Time, 2.22½, 2.21¼, 2.24.

Brockton Fair.

Even the weather "talisman," which the great Brockton Fair has possessed in the past, failed to clear away the ominous looking clouds on the first day of the exhibition, but the horses raced through mud and slush. Wednesday brought no hope and the falling rain forced a postponement to Thursday.

Thursday's sun rose warm and clear, and the extensive grounds took on a carnival appearance. Flags dried and flew in the freshening breeze. Fakirs' tents whitened in the rays of the sun, and the throng began to come. By noon the enclosure was black with people. The air was full of music and the babble of voices. Confetti of many colors glistened in the sunlight and covered the ground, the bands played, the balloons went up, and everybody was happy.

The fast half-mile track seemed a circular furrow through a mass of humanity, through which the horses raced for the liberal purses. On Thursday the interest centred in the free-for-all pace, and had there been speculation at the track many would have gone down on Locanda. At Taunton the week previous, *Annidrosis* was not apparently good, and everybody looked to see Brodbine's pony outrace him, but it was beyond his "persimmons." The race was merely a duel each heat between these two horses. Through the stretches Locanda would outpace the chestnut horse, but around the turns the son of St. Croix would get a lead that could not be overcome. He won every heat by inches.

Amos Rathbun, after laying up two heats with *Sphinxie*, had things his own way for the remainder of the race in the 2.18 pace, and Harry Brusie returned Surprise a winner in the 2.30 trot, after Alcaria went lame. Consuela S. made short work of the 2.12 trot. Gene D. was drawn after the first heat, owing to lameness. C. H. Nelson stepped Geiger to a record of 2.18¾ after Gambrella had won the first heat of the 2.22 trot, and had then been drawn. Gambrella finished her winning heat in fine form, but when being walked out showed lame. Then the big mare Juno marched away, and won the third and fourth heats, when the race was postponed to Friday. Friday morning Geiger again outstepped his field, and won the opening heat, only to succumb to Juno in the last heat.

Louise G. was "it" all the way in the 2.09 pace, with *Plebon W.* and *Terrill S.* doing battle for the place. *Terrill S.* was decidedly off in form, and repeated breaks cost him whatever chance he had of beating the fast game daughter of Alclayone. Later in the day Frank Merrill won a corking good race with *Satan* in the 2.13 pace, after *Minnie B.* and *Fred M.* had each annexed a heat to their credits.

Dick Lawrence had worked the great old campaigner Capt. Jack a couple of times over at Readville, and started him in the free-for-all trot in rather warm company. The horse looks good and goes sound, but with so little work, after a layup of two years, he raced, not on condition, but on that indomitable spirit, which carried him to victory in his palmy days, and enabled him to hold the honor of being one of a very few horses that ever defeated the mighty Cresceus. Capt. Jack was first all the way in the first heat, beating Poindexter by a half length in 2.14¾. Poindexter won the last three heats in slower time.

Centrific, that great Baron Wilkes pacer, won again in the 2.21 pace over a field of ten horses, lowering her mark to 2.15¼ after Lester Dore had captured the first two heats with *Bessie Smith*, a likely pacer by Sphinx Gift.

The racing all through the week was clean and sharp, full of exciting incidents and hair-raising finishes.

SUMMARIES.

Brockton, Mass., Sept. 30, 1902—2.50 class, trot. Purse, $500.

Lady Rolfe, b m, by Sid Rolfe; dam by Mountaineer (O'Neil)	1	1	1
Florence C., ch m (L. Johnson)	2	2	2
Sir Red, b h (Wilbur)	3	3	5
Miss Cuthbert, b m (Paige)	5	4	3
Willie John, b g (Rice)	10	5	4
Jim P., b g (A. Johnson)	4	6	6
Adee, b g (Davis)	8	7	7
Coxa, b g (Granam)	7	8	8
Mazetta, rn m (Hayden)	6	dis	
Pat B., b g (O'Donnel)	9	dis	
Highland Laddie, blk g (Milan)	11	dis	

Time, 2.22¼, 2.22¼, 2.22¼.

Same day—2.29 class, pace. Purse, $500.

Knox Gelatine Lad, blk g, by Androlia; dam by Amboy (Brusie)	1	1	1
Decima Dean, b m (O'Neil)	2	2	3
Nutwood, b g (J. Holmes)	4	3	2
Rubita, ch m (A. Johnson)	3	4	7
Young Bayard, b g (Hayden)	5	6	4
Odoro S., br m (Pierce)	6	5	5
Aristocrat, b g (Holmes)	7	7	6

Time, 2.18¾, 2.20¼, 2.21¼.

Same day—2.26 class, trotting. Purse, $500.

Surprise, b g, by Outward; dam, Jennie, by Gilead Golddust (Brusie)	3	1	1	1
Incarnate, blk g (Isabel)	1	2	7	3
Handspring, b h (Pierce)	4	3	4	2
Indell, b m (Humphreville)	2	7	3	5
Lydia C., b m (Carpenter)	7	6	2	4
Mattie Miller, b m (Collins)	5	4	5	8
Miss Lewis, b m (Hayden)	8	9	8	7
Prof. Schaler, blk g (Johnson)	9	8	8	dr

Time, 2.23¼, 2.23¼, 2.24½, 2.23¼.

Brockton, Mass., Oct. 2, 1902—2.30 class, trot. Purse, $500.

Surprise, b g, by Outward; dam, Jennie, by Gilead Golddust (Brusie)	1	2	3	1	1
Alcaria, blk h (Humphreyville)	4	1	1	4	2
Lassie, b m (Kingsley)	2	3	2	2	3
Emma Wilkes, b m (Reynolds)	5	4	4	3	4
Joe Zar, blk g (Braun)	3	6	5	6	5
Dick Delmar, b g (Clancey)	6	5	6	5	6

Time, 2.23½, 2.20, 2.20¾, 2.21¼, 2.23½.

Same day—2.18 class, pace, two in three. Purse, $500.

Sphinxie, gr m, by Sphinx; dam by Pilot Medium (Rathbun)	6	6	1	1
Black Prince, blk g (Rafferty)	1	2	4	2
Nanirva, b m (Isabel)	5	1	2	3
Esserine, b m (Wall)	2	4	3	ro
Dunder, ch g (Reynolds)	3	3	5	ro
Sanny G., blk m (Berry)	4	5	6	ro
Butch W., b m (Gosnell)	7	dis		

Time, 2.17¼, 2.15½, 2.17¼, 2.19¾.

Same day—Free-for-all pace. Purse, $800.

Annidrosis, ch g, by St. Croix; dam by Young Volunteer (Kent)	1	1	1
Locanda, br h (Brodbine)	2	2	2
Diavolo, br g (O'Neil)	4	3	3
Island Wilkes Jr., b h (Pickle)	3	4	4
Emma E., ch m (Lawrence)	6	5	5
Fred M., b h (Gosnell)	5	6	dr

Time, 2.10¼, 2.09¾, 2.10.

Same day—2.12 class, trot, two in three. Purse, $500.

Consuela S., b m, by Directum; dam, Daisy, by Nutwood (Pierce)	1	1	
Single K., ch g (Gosnell)	2	2	
Gene D., br m (Lassell)	3	dr	

Time, 2.16¾, 2.14¾.

Brockton, Mass., Oct. 3, 1902—2.22 class, trot. Purse, $500. Four heats trotted Oct. 3.

Juno, b m, by Broadway; dam, Maggie B., by Waldo Knox (Freeman)	7	5	1	1	6	1	
Gelger, blk g (Nelson)	2	1	6	5	1	2	
Dorena, b m (Fleiser)	5	2	2	2	4	ro	
Black Beauty, blk m (Clark)	4	4	3	3	2	ro	
Pithia, br m (Gosnell)	6	3	4	4	3	ro	
Fashion, ch g (Sprague)	3	7	5	7	5	ro	
Saytell, b h (Pierce)	8	6	7	6	dr		
Alice B., ch m (Newbert)	9	8	8	dis			
Gambrella, b m (Paige)	1	dr					

Time, 2.19¾, 2.18¾, 2.20¾, 2.20, 2.21, 2.23.

Same day—2.13 class, pace. Purse, $500.

Satan, b g, by Guy Princeton; dam by Chestnut Wilkes (Merrill)	6	6	1	1
Fred M., b h (Gosnell)	3	1	2	2
Minnie B., b m (Sayles)	1	2	3	4
Lexington, blk g (O'Neil)	4	3	4	8
Gagnant, rn g (Johnson)	2	5	6	3
J. W. E., b g (Clark)	5	6	5	7
Sam Hill Jr., blk h (Clancy)	8	7	9	5
Rex, b g (Collins)	7	8	7	6
Darnette, blk m (Bass)	9	9	8	dr

Time, 2.14¾, 2.13¾, 2.14¾, 2.14¾, 2.14½.

Same day—2.21 class, pace. Purse, $500.

Centrific, blk m, by Baron Wilkes; dam, Belles Lettres, by Bell Boy (Quinn)	6	2	1	1
Bessie Smith, b m (Dore)	1	1	2	5
Knox Gelatine Lad, blk g (Brusie)	7	4	7	2
Shiner, b g (Durland)	2	3	4	8
Midget, blk m (Clancy)	5	6	3	3
Cavastareene, gr m (Lovett)	3	5	9	4
Red Shedd, br g (Taylor)	8	8	6	6
Don C., b g (Clark)	5	7	5	7
Billy M., gr g (Thomas)	10	9	8	dr
Tom Reed, ch h (Mahar)	9	10	dr	

Time, 2.19¼, 2.17½, 2.15½, 2.17½, 2.15¼.

Same day—Free-for-all trot. Purse, $800.

Poindexter, b h, by Abbottsford; dam, Clyserine, by Cyclone (Paige)	2	1	1	1
Capt. Jack, blk g (Lawrence)	1	2	3	3
Alcy, blk g (Lassell)	3	3	2	2
Benton M., ch h (Kervick)	4	4	4	4

Time, 2.14¾, 2.17, 2.15¼, 2.13¼.

Same day—2.15 class, trot, two in three. Purse, $500.

Single K., ch g, by Young Fullerton; dam by Intact (Gosnell)	3	1	1
Dick Berry, b g (Lassell)	1	1	3
Axtelloid, b g (Forshner)	3	2	4
Alkalone, blk h (Dore)	4	4	2
Alberta, b g (Doble)	5	5	3

Time, 2.17, 2.15¾, 2.15¼.

Same day—2.09 class, pace. Purse, $500.

Louise G., b m, by Alclayone; dam, Louviska, by Constellation (Merrill)	1	1
Phebon W., br g (Dore)	2	2
Terrill S., ch g (Lassell)	3	3
Stormwood, b g (Stone)	4	4
Knox Gelatine Boy, blk g (Brusie)	6	5
Cinch, ch g (Bass)	5	8
Norvin G., b g (Doble)	7	6
Gyp Walnut, b g (O'Neil)	8	7

Time, 2.09¼, 2.10¼.

Brockton, Mass., Oct. 4, 1902—2.38 class trot. Purse, $500.

Lady Rolfe, b m, by Sid Rolfe; dam by Mountaineer (O'Neil)	1	1	1
Florence C., ch m (Johnson)	2	3	2
Miss Lewis, b m (Hayden)	7	2	4
Miss Cuthbert, b m (Paige)	6	4	3
Joe Zar, blk g (Brown)	3	5	5
Sir Red, b h (Wilbur)	4	6	7
Joe Thomas, b g (Tallman)	5	7	6
Willie John, b g (Rice)	9	dis	
Little Glimmer, b g (Tappan)	5	dr	

Time, 2.21¼, 2.21¼, 2.23¼.

Same day—2.35 class, pace. Purse, $500.

Sagwa, b g, by Saywa; dam by Benjamin (Paige)	5	3	1	1
Nutwood, br g (Holmes)	1	1	4	2
Young Bayard, b g (Hayden)	3	2	2	3
Decima Deane, b m (O'Neil)	2	5	3	2
Knox Gelatine Queen, gr m (Brusie)	6	4	5	6
Paddy the Irish Boy, ch g (Hollis)	4	6	6	5dr
Ephraim, b g (Merrill)	dis			

Time, 2.18¼, 2.18¼, 2.16¾, 2.19¼, 2.20.

Same day—2.18 class, trot. Purse, $500.

Byron Wilkes, blk g, by Tarratine; dam, Empress, by Sterling (Page)	1	1	1
Notion, b g (Thomas)	3	2	2
Caesarea, b m (Holmes)	2	3	3
Casque, b h (Graham and Dautrich)	4	4	5
Othmar, b g (Fletcher and Dore)	5	5	4
Priola, b m (Paige and Johnson)	6	6	dr
Lake Queen, b m (Miller)	dis		

Time, 2.17¼, 2.18¼, 2.17¾.

Same day—2.25 class, pace. Purse, $500.

Knox Gelatine Lad, blk g, by Adrobia; dam by Amboy (Brusie)	1	1	1
Kittie M., blk m (Welch)	2	3	2
Rubita, ch m (Johnson)	4	2	4
Budweiser, b g (Collins and Linnehan)	3	4	3

Time, 2.20¼, 2.21¾, 2.21¼.

Woonsocket (R. I.) Notes.

EDITOR AMERICAN HORSE BREEDER:

On Tuesday next, Oct. 7, we start on two weeks' racing at the local track. This week's racing should be of first quality, as some of the best half-mile horses in the country are among the entries. There are eleven classes in all that filled, and a total of 135 horses. The free-for-all class, with *Frank Yokum*, *Effie Powers*, Gipsey Red, Marion G., Annie Leyburn and Light to start, should be a closely contested race, and a hard one for the talent to pick a winner.

The second week also should be a record-breaker, as most of the horses that are here will stay for the two weeks. Entries close for the second week on Thursday, Oct. 9. The weather conditions, which have been so unfavorable for the past few weeks, look brighter, and we are almost sure to have ideal racing weather for at least a month. Mr. Van Wagner of Franklin Park, Saugus, Mass., will give the word, which means that all horsemen will get a good show for their money.

My Chance, the local horse, took third money at Nashua, last Friday, in the 2.16 trotting race there, and will be one of the starters in the 2.18 trot Friday next. Your readers will get a full report of the meeting in your next issue.

Don't forget that entries for the second week close Oct. 9. The track record is sure to take another tumble this week. The holder of more than twenty-eight track records, *Effie Powers*, will perform this week. BARNEY.

Racing at Gray, Me.

EDITOR AMERICAN HORSE BREEDER:

The following summaries are of races that took place at Gray Park, Gray, Me., given at the eighteenth annual exhibition of the Gray Park Association, 1902.

Gray, Me., Oct. 3, 1902—Three-minute class, trot or pace. Purse, $100.

Ned W., b g (Gerrow)	1	1	1
Earl T., s g (Hewes)	3	3	2
McGinty, br g (Richards)	2	4	3
Twinkle Wilkes, b m (Russell)	5	5	4
Chris, b g (Allen)	4	2	5
Souvenir, blk g (Rideout)	6	6	6

Time, 2.35¼, 2.35½, 2.32½.

Same day—2.30 class, trot or pace. Purse, $150.

Clara Wilkes, b m (Woodbury)	1	1	1
Umpire, b g (Russell)	2	2	2
Brino, br g (Anthoine)	3	3	3
Annie Gaines, br m (Jenness)	4	4	4
Magnezite, br m (Hall)	5	5	5

Time, 2.24¼, 2.24½, 2.24½.

The summaries indicate that Magnezite was slow, but she really was the speediest of the class in places. She has not raced since 1900, and had been in only three races this season previous to this one, and was not stayed up for such a fast clip. Mr. B. F. Delano brought this mare here when she was three years old. She was bred at Maplehurst Farm, Lancaster, Mass.; her sire was Electricity, and dam was Zora Zar. If nothing happens to her before the end of next season she will have a mark that will be well into the teens. She is a handsome, level-headed trotter, but lacks education. Properly hung up and in the hands of a good driver she will win large money. Mr. Hall has had several offers for her, but refused them all.

Gray, Me., Oct. 4, 1902—2.19 class, trot or pace. Purse, $200.

Al Pointer, s g (Pottle)	1	1	1
Sebat, b g (Richards)	2	2	2
Pacer B., blk g (Hawkes)	3	3	3

TIME.

	¼	½	¾	Mile
First heat	.36	1.10½	1.46	2.22
Second heat	.37	1.12½	1.48	2.24½
Third heat	.35½	1.10½	1.46	2.20½

The track record previous to this race was 2.22¾. *Al Pointer* in the third heat could have easily beaten his record of 2.19½.

Same day—2.40 class, trot or pace. Purse, $100.

Jerry L., br g (Murray)	3	1	1
Martha, b m (Richards)	1	2	2
Earl T., sr g (Hewes)	2	3	3

Time, 2.30, 2.32½, 2.30½, 2.29½.

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WILLIAM I., 2.11¼, pacer, gray gelding, by Arrowwood, sound and in good condition. William I. has started seven times this season, winning at Dover, N. H., on Sept. 11, in three straight, and reducing his record to 2.11¼. He finished either second or third in each of the other six races. He will be sold cheap, with all his accoutrements, bike sulky, road wagon, etc., to a quick buyer. Price, $1500. Address
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FOR SALE.

Matched pair of chestnut geldings, four years old, 15½ hands tall, weigh 2060 pounds, well bred, one by Elyria, prompt drivers, good knee action, sound and plenty of style.
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Brown stallion, one year old, sired by Baron Oakes, by Baron Wilkes, own brother to Oakland Baron, sire of Rythmic (2.08) and Baron de Shay (2.06¾); dam by Lumps, full sister to Luminator, who sold for $10,000; second dam by Governor Sprague; third dam by Mambrino Patchen; fourth dam, Vandalia (thoroughbred). Sound and good gaited. Address
BRECKINRIDGE PAYNE, Lexington, Ky.

FOR SALE.

The great brood mare Houri, record 2.17 (dam of San Telmo, record 2.16¾, and Masconomo, 2.22½). Sired by Onward, 2.25½, sire of Beuzetta, 2.06¾, Onward Silver, 2.08, and 26 others in the list; dam, Jessie Turner, by Mambrino Patchen 58, sire of the dams of Ralph Wilkes, 2.06¾, and 147 others in the list; second dam by Captain Walker (sire of the dams of Harry Wilkes, 2.13¾, etc.); third dam by Don Juan; fourth dam by Kosciusko; fifth dam by Whip. Daughters of Onward have produced ninety-one standard performers. Houri is a brown mare, foaled in 1884, and she was a noted race mare. Her record was made in a race in her five-year-old form to a high-wheel sulky, at Lexington, Ky. She produced a foal last spring by Bingen, 2.06¾ and was bred to him this year, and is believed to be safely in foal. Price, $500. For any particulars address
BOX 2286, Boston, Mass.

FOR SALE.

Rex G. G., trotter, by Ira Nutwood, by Ira Wilkes by George Wilkes; dam by Harrison's Chief. I bought him with a record of .19½; he is nine years old, a very strong made horse all over; 15 hands high; will weigh 1000 pounds; very stylish, fine mane and tail, and knows how to carry it; kind and gentle, sound, and no road is too long for him: a great feeder. I sell him for no faults, but am overstocked for the winter. I drove him a mile in September in 2.23½, quarter in 34½ seconds, right off the road. Can draw a wagon a 2.20 shot on the road: a great actor. Come and see him and satisfy yourself that he is as represented. Price, $250. No trades.
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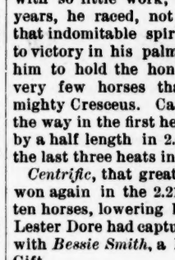

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BILLY F., 2.19¾, tr	2.14¾	DAN R	2.36
HANNAH HUDSON, tr	2.28	BESS, tr	2.32¾
JUDGE D., matinee 2.24¾, tr	2.30	DAISY PATTERSON, tr	2.35
BONNIE WOOD, tr	2.30¾	PERSIMMONS, tr	2.17
MARY BALES, tr	2.20	LADY BROOKS, 2.18¾, tr	2.12
ETHEL B., tr	2.27	NICHOLAS B., 2.04¾, tr	2.10
CARRIE B., tr	2.22	LADY B., 4-mile track tr	2.27
JIM FOLEY, tr	2.20¾	MILDURA, 2.17¾, tr	2.09¾
RAYMOND D., tr	2.22	HARRY K., 2.27¼, tr	2.14¾
DOUGLAS V., 2.22¾, matinee	2.19	KELLER, tr	2.21
WALTER SMITH, 2.14¾, tr	2.13¾	BERT A., 2.20¾ (2), tr	2.24
TED, 2.31¾, tr	2.10	MISS GOLDIE NU, tr	2.34
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